

GOVERNMENT OF INDIA

ARCHAEOLOGICAL SURVEY OF INDIA

CENTRAL
ARCHAEOLOGICAL
LIBRARY

ACCESSION NO. 51358

CALL No. 919.105/J.I.A-E.A.

D.G.A. 79.

1901

THE
JOURNAL
OF THE
INDIAN ARCHIPELAGO
51358
AND
EASTERN ASIA.

217.125
J. I. A. L. A.

VOL. I.

SINGAPORE :
1847.

KRAUS REPRINT

A Division of
KRAUS-THOMSON ORGANIZATION LIMITED
Nendeln/Liechtenstein
1970

CENTRAL ARCHAEOLOGICAL
LIBRARY, NEW DELHI.

Acc. No. 51358

Date 7.8.72

Vol. No. 919.105

J. I. A. E. A.

CONTENTS.

I.

THE PRESENT CONDITION OF THE INDIAN ARCHIPELAGO, by J. R. LOGAN, *Member of the Asiatic Society, Corresponding Member of the Batavian Society of Arts and Sciences.* 1-21.

Physical relation of the Archipelago to the Continent of Asia, 2.—Hypothesis of their former connection, 3.—Influence of its geological development on the distribution and form of the islands, on climate, and vegetation, 4.—Luxuriance of the latter, character thereby given to the small islands, 5.—to the mountains, 5.—Change caused by volcanic eruptions, 6.—Forests of the Archipelago, 7, their character, 7.—Wild animals, 8.—The life of the sea marshes, beaches, and banks, 8-9.—Testimony of naturalists to the exuberance and beauty of animal and vegetable life, 9.—Influence of the physical, on the human, history of the region; population an extension of that of the continent, 9-10.—Two great eras in its civil history.—Wild nomades of the forests and the sea, *id.*—Hindu civilization, 11.—Mahomedan, *id.*—Rise of dominant nations *id.*—European influence, *id.*—Great diversity of tribes, languages, customs, and forms of government, 12.—Human life and industry in the Archipelago at the present day, 12-14.—Great piratical communities, 14-15.—Slave trade, *id.*—Social and personal condition of the inhabitants, 15-16.—Present degeneracy of the governments from the influence of the European dominations—foreign elements of change—means of amelioration—duty of England, 17-21.

II.

GUTTA PERCHA, by T. OXLEY, Esq., A. B., *Senior Surgeon of the Settlement of Prince of Wales' Island, Singapore and Malacca.* . . . 22-29.

Discovery of the Gutta by Europeans, 22.—Botanical description, 22-23.—Range, habitat, mode of procuring, 24.—Properties, uses, application to surgery, 26.—Great superiority to bandages and splints in cases of fracture, &c., 26-28.—Capsules for vaccine virus, 28-29.—Patents in England for cleaning the gutta and removing its acidity—means of procuring it pure where it is produced, 29.

III.

SOME REMARKS ON THE DYAKS OF BANJARMASSING. 30-31.

Character; dress; tattooing, 30.—Ornaments; feasts, drinking; Death—feast, *Bhians, Olo maga lian*, 31.—Omens from flight of Birds—Sacrifices from dreams, 32.—Misfortunes 33.—Human sacrifices, 33.—Industry, kottas, population of Palopetak, 31.

IV.

ANNUAL REMITTANCES BY CHINESE IMMIGRANTS TO THEIR FAMILIES IN CHINA.	35-37.
--	--------

V.

SHAIR BIDASARI: A Malay Poem, with an English Translation and Notes, by J. R. LOGAN.	38-48.
--	--------

VI.

DETAILS RESPECTING COCHIN CHINA, by MGR. LE FEVRE, <i>Bishop of Is-auropolis and Vicar Apostolic of Lower Cochin China.</i> 49-65, 109-118.

Formation of the Monarchy, 49—Kings, 50.—Geographical position and divisions, 51.—Rivers, 53.—Mountains, *ib.*—Minerals, 54.—Climate, *ib.*—Plants, 56.—Animals, *ib.*—Harbours, 57.—Towns, 58—Population, 59.—Taxes, *ib.*—Inhabitants, 60.—Dress, 62.—Manners and customs, 63.—Houses and Food, *ib.*—Condition of the Women, 63.—Arts and Sciences, 65 Government, King, Mandarins, Laws, Army, Identity in usages, &c., with the Chinese, 109-112—Language, character, grammar, sounds, 112-115.—Religion and state of the Christian religion in Cochin China, 115-117.—Missionaries, 117-118.

VII.

SOME CONTRIBUTIONS TO THE NATURAL HISTORY OF THE RAFFLESIA PATMA, by the HEER ZOLLINGER, M. B. S. &c.	66.
---	-----

Habitat, size, superstitious and medicinal uses by the Javanese.

VIII.

A GLANCE AT RHIO: by J. T. THOMSON, Esq., <i>Hon. M. Newcastle Nat. Hist. Soc., Surveyor to Government:</i>	64-74.
---	--------

Position 68.—Shape and Coasts of the Island of Bintang, *ib.*—Description of the town of Rhio, 69.—Gambling houses and policy of Gambling Farms, 70.—Pulo Piningat, the residence of the Rajah Muda, ceremonies on the marriage of his son, 71-72.—Geology of Bintang, 73-74.

IX.

CONTRIBUTIONS TO THE STATISTICS OF THE POPULATION OF JAVA: by P. BLEEKER, <i>Mem. Dir. and Sec. Bat. Soc.; Med. Serv. Neth. India.</i>	75-76.
--	--------

X.

NOTES ON THE GEOLOGICAL FEATURES OF SINGAPORE AND SOME OF THE ISLANDS ADJACENT: by LIEUT.-COLONEL LOW, C. M. R. A. S. & M. A. S. C.	84-100.
---	---------

The GRANITE of Singapore, p. 84-6.—SANDSTONE and CLAYEY strata, their elevation, disruption, analogy in position to the new Red sandstone, included nodules, &c., 86-90.—Absence of coal, coal of Borneo, of the Malay Peninsula N. of Pinang, 90-91.—Composition of the sandstones and their soils, 91-92.—Peaty matter, clays, and sand of the plain and vallies, 92-93.—The IRONSTONE, compared with the laterite of Malabar &c., 93-97.—Pulo Timmukul, P. Chikukoh, 99.—Blakang Mati, P. Tokong, P. Buah Saga, P. Ubi, 98.—P. Panjang, Batu Berlayer, 99-100.

 XI.

DESCRIPTION OF KARRANG BOLLONG (IN JAVA) AND OF THE BIRD'S NEST ROCKS THERE. 101-108.

Karrang Bollong, residency, fish ponds, temperature, population, 101—102.—sacrifices and ceremonies on gathering the Bird nests, mode of descendings into the Caves and procuring the nests, the swallow, &c. 102-108.

 XII.

NARRATIVE OF THE EVENTS CONNECTED WITH THE ARREST OF THE RIGHT REV. MGR. LE FEVRE, *Bishop of Isauropolis and Vicar Apostolic of Lower Cochin China*, by the Cochin Chinese Govt. in 1846, 119-126.

 XIII.

TEMMINCK'S GENERAL VIEW OF THE DUTCH POSSESSIONS IN THE INDIAN ARCHIPELAGO. 129-149, 183-222.

Present administration, Cultures and Finances of Netherlands India, Population of Java and Madura, Batavia, 129.—administration of the interior, Dhemang, Pannatoes, A'dhipati, Pangeran, Kabutans, and Residencies, 131.—disturbance of the system by great European proprietors, 132.—tenure of land, state services, 133.—land tax, 134.—vindication of the system of administration 135-6.—General Government, Governor General, Council of the Indies, Governors of Sumatra, Borneo and Celebes, 136.—Courts and Laws, 139.—Orphan Chambers, 138.—Finances, 138.—Ecclesiastical system, Education, Sciences, Batavian Society, Navy, Army, 141-142.—Pacific and ameliorating policy of the Government, 143-4. Revenue, 183.—Expenditure, 184.—System of Cultures, village organization, 185.—System of the old Company, 186,—of General Daendels, 188,—of the British, 189,—of Baron van der Capellen, *id*, —of General van der Bosch, 192,—Principle of the present system, its operation, and results to the natives, 193-196.—Different Cultures, Rice 197.—Coffee, 199.—Sugar, 200.—Indigo, 201.—Cinnamon, 202.—Co-chinical, 202.—Cloves, Pepper, Tobacco, Tea, 203.—Silk, Cotton, 204.—Forests, 205.—Agricultural penitentiary institution, *id*.—Breeding of Cattle, *ib*.—Camels, 206.—Horses, Model Stud, *ib*.—Trade Exports in 1826, 206,—in 1833, 207,—in 1841, and 1843, 208.—Imports in 1835, *ib*.—Exports in 1835, 210-11.—Imports in 1843, 212, 13.—Exports in 1843, 213, 15.—Shipping, 215, 17.—Financial Statement for 1844, and Comparison of Imports and Exports for 1843 and 1844, 217, 20.—Great development of agriculture and trade since 1830, present flourishing and advancing state of Java, 220, 223.

XIV.

NOTES ON THE COAL DEPOSITS WHICH HAVE BEEN DISCOVERED ALONG THE SIAMESE COAST FROM PINANG TO THE VICINITY OF JUNKCEYLON. by Lieut Colonel LOW, M. A. S. C. & C. M. R. A. S. . . . 146-149.

Visit to the coal district.—Kayu Kamuning coal, 146.—Pulo Tiga *ib.*, 146-7.—Anthracitic coal, 147.—Tama coal, *ib.*—Last coal, 149.

XV.

DISCOVERY OF COAL IN LIGOR AND KEDAH ON THE WEST COAST OF THE MALAY PENINSULA, by J. R. LOGAN.. . . . 151-168.

Characters of the coal first discovered, 151.—Analogous coal from Rettie in Sumatra, 153.—The Gurbie or Temah coal and associated beds, *ib.* Professor Ansted's remarks on the first coal, 154.—Correspondence between the Governor of the Straits and the Govt. and Dr. O'Shaughnessy's report on this coal, 155-160.—Later search and discovery of coal near S. Kayu Kamuning, 160.—Character of this coal, 161.—Lapidified portions, passage of jet into crystals of silex, 162-4.—Iron pyrites, 164.—metamorphic process similar to that suffered by rocks of Cape Rachado &c, *ib.*—Analogy to Singapore anthracite, 165.—Plutonic deterioration of the coal of the Peninsula, *ib.*—overlying ironmasked layer, hydrated peroxide of iron resulting from the decomposition of pyrites, same in granites of Pulo Besar near Malacca, and ferruginous dyke in granite of P. Mallang, 166-7.—Calcareous associated beds at Tama, fresh water shells—Further information required, 167-8.

XVI.

INTRODUCTORY REMARKS TO A SERIES OF CONTRIBUTIONS TO THE ETHNOLOGY OF THE INDIAN ARCHIPELAGO, by J. R. LOGAN.. 171-182.

Materials presented by the Archipelago for ascertaining the elementary principles of ethnology, 171.—limit of identity in the development of races, 172.—causes of the spontaneous and natural growth of language, 173.—Its value in comparative ethnography compared with that of habits and customs, 174.—historical value of the latter 175.—necessity for minuteness and exactness of observation, 176.—importance of the ethnography of surrounding nations, 178.—Mr. Crawford's rejection of the notion of a Polynesian language prevailing, from Madagascar to Eastern island, *ib. note.*—humanizing and illuminating influence of ethnic enquiries,—language the grand evidence of the similarity of human life in all nations, 180.—necessity of compiling vocabularies, 182.

XVII.

A FEW REMARKS ON CONCHOLOGY AND MALACHOLOGY, comprising brief notices of some of the more remarkable "Testacea" in Singapore and its neighbourhood; with an appended catalogue of Singapore Shells arranged in conformity with Lamarck's System, by WM. TRAILL, M. D. 225-241.

Prefatory remarks, 225-228.—Paucity of larger shells, 228.—Greater

abundance and size around islands south of Singapore, *id.*—Shell fish used as food, 230.—Tendency to form varieties, *id.*—Shells most abundant, 232.—Notices of particular shells, *Magilus antiquus*, 233.—*Lima. Parmaphora*, 234.—*Planorbis*, *Natica*, 235.—*Cerithium lineolatum*, 236, *Cypræa tigris*, *C. olivacea*, *C. adusta*, 237.—*Echina*, 238.—Catalogue of the shells of Singapore and its vicinity, 239–241.

XVIII.

THE ORANG BINUA OF JOHORE, by J. R. LOGAN. . . . 242–293.

Introductory, journey through Johore, discoveries, 242–5.—The country of the Binua, *id.* of the Bermun tribes i. e. *Udai*, *Jakun*, *Mintira*, *Sakai* and *Besisi*, 249–9.—Physical characteristics, expression, and manner of the Binua, 249–252.—Dress, 252.—Houses and household goods, 253. Food and Industry, 254.—Ladangs, cultivated and wild vegetables, 254.—6.—Fish and fishing, game and hunting, wild hogs, 256.—Deer, monkeys, snakes, snares for large animals, 257.—Birds, wild fruits, 258.—Durian groves, 259.—Great *arrack tampui* feast of the *Mintira*, 260.—Collection of forest produce for Malays, 261.—*Taban* (Gitta Percha) abundance, mode of procuring, &c. 261–3.—Camphor and camphor language, 263–6.—Condition, character and manners. Radical affinity to Malays, 266–70.—Marriage, Birth, Burial, 270–1.—Additional remarks on agriculture, arts, &c., impliments, canoes, sumptuans 271.—War, invasion of the *Mintira* by the *Rawa* from *Menangkabau*, 273.—Government, crimes, punishments, inheritance, 274.—Religion, *Pirman*, *Jin Bumi*, *Jewajewa*, *Poyangs*, incantations, 275–7.—Medicines, 277.—Origin of the country and race, 277.—Analogy of religion and traditions to those of the *Battas* and *Dyaks* and probable Hindu origin of former, 279–283.—Ideas respecting some natural phenomena &c. sun, moon, and stars, eclipses, shape of earth, clouds and rain, division of time, dread of small pox, of the sea &c., 283–5.—The present relation of the Malays to the *Binuas*, 285–8.—Language, 289.—Absorption of the race by the Malays, Comparison of the *Binuas*, *Battas*, *Dyaks* and Malays, 290–293.

XIX.

PHYSICAL CHARACTERISTICS OF THE MINTIRA, by J. R. LOGAN, 294–5.

XX.

THE ORANG SABIMBA OF THE EXTREMITY OF THE MALAY PENINSULA, by J. R. LOGAN. 295–298.

Tradition of origin, 296.—food, wild fruits, roots and leaves, *ib.*—The cock prohibited *ib.*—Marriage, death, graves, adultery, dreams, 297.—Child birth, 298—Physical characteristics, *ib.*

XXI.

THE ORANG BIDUANDA KALLANG OF THE RIVER PULAI IN JOHORE, by J. R. LOGAN. 299–302.

Habits, medicines, burial, &c., 300.—Physical characteristics, 301–2.

XXII.

THE ORANG SLETAR OF THE RIVERS AND CREEKS OF THE OLD STRAIT AND ESTUARY OF THE JOHORE, by J. R. LOGAN.	302.
---	------

XXIII.

TABLE OF MEASUREMENTS illustrative of the physical peculiarities of the Mintira, Biduanda Kallang, and Sabimba, by J. R. LOGAN.	305.
--	------

XXIV.

THE SUPERSTITIONS OF THE MINTIRA, with some additional remarks on their customs &c., by J. R. LOGAN.	307-331*
---	----------

Hantu or Spirits of Disease &c., 307.—Spells, *taju*, 308.—Incantations and Invocations, 308.—for Defence (*Pendinding*), 309.—Love (*Pengaseh*), 310.—Sweetness (*Pimánis*), 311.—Subjection of others (*Pánundo*), 312.—Abasing of others (*Chucha*), 313.—Rendering enemies speechless (*Pemátá Lida*), 314.—Hatred (*Pebínchi*) 315.—Spells used in attacking elephants, 316.—Id. to allay Storms, 317.—For safety in the Forest *id.*, for expelling spirits of disease, 318.—Amulets, 318.—Wishing Places, *id.*—Superstitions of Cultivation, ceremonies and charms on selecting ground, cutting forest, planting or sowing and reaping rice, 320-2*.—Marriage, 322*.—Birth and naming, 323*-5*.—Burial, 325*.—World beyond the Grave, *id.*—Traditional traces of Origin, 326*.—The relation of the Malays to the Mintira 328*.—Orang Rawa of Sumatra, their annual immigrations into the Malay Peninsula, growing power, and oppression of the Mintira *id.*—Miscellaneous Remarks, constitution of society, training of children, measures, music, weapons, diseases, fruit used, varieties of paddy 330-1*.

XXV.

VISIT OF A PARTY OF ORANG MINTIRA TO SINGAPORE, by J. R. LOGAN.	330-6.*
---	---------

XXVI.

THE ETHNOLOGY OF THE JOHORE ARCHIPELAGO, by J. R. LOGAN. 336*-40*	
---	--

- Description of the Archipelago, names of tribes, 336*.—Pulo Battam and its tribes *id.*—337*.
- I. THE ORANG MUKA KUNING of Battam, habits, industry, 337*.—Religion confusion of religions, marriage, 338*.—Names, graves, physical peculiarities, 339*-340*.

XXVII.

REMARKS ON THE SLETAR & SABIMBA TRIBES: by J. T. THOMSON, Esq. Hon. M. N. H. S. of Newcastle.	341*-351*.
--	------------

Two boats of orang Sletar visit the Gunboat, their appearance and man-

ners 341^a-2^a.—Number, language, implements and food of the tribe 343^a.—Customs, births, marriages, boats, 344^a.—Personal characteristics, origin of tribe 345^a.—Names, 346^a.—Similarity to the Biduanda Kallagn, *id.*—Physical peculiarities 347^a.—Orang Sabimba, their food, sumpitans, atheism, marriages, 348^a.—Language, names, ethnographical importance of proper names, personal appearance, call for Christian Missionaries, 349^a.—Description of plates, method of exhibiting the proportions of the different parts of the head geometrically 350^a-1^a.

XXVIII.

EXAMINATION OF THE COAST OF THE PENINSULA FROM P. MUTIARA TO P. PANJANG IN SEARCH OF COAL DEPOSITS IN NOVEMBER 1847, by CAPTAIN CONGALTON, *Commander of the H. E. I. C. Steamer "Hooghly."* 353^a-358^a.

Examination of P. Mutiárá 353^a, Tánjong Patong, coal found, 354^a-5^a.—Tánjong Bombong, 356^a.—P. Lontár, *id.*—Támá, Tánjong Putri, P. Pánjang, P. Bouton, 357^a.—Low's Island and other islets to the northward of Purlis 358^a.—General results, *id.*

XXIX.

THE LAWS OF THE INDIAN ARCHIPELAGO AND EASTERN ASIA, by J. R. LOGAN. 321-326.

XXX.

ON THE LAWS OF MUUNG THAI OR SIAM, by Lieut. Colonel JAMES LOW, C. M. R. A. S. & M. A. S. C. &c., 328-426.

Arrangement of Subject, Powers of Letters, 328.—Introductory Chapter 329.—Interest of the subject, 329.—Digests, 331.
 Chap. I. On Property, The Soil, 335.—Land tax, 336.—Annual ploughing festival & other singular customs, 338-9.—Omens, spirit of the paddry, 340.—Agricultural system, 341.—Gardens, 342.
 Chap. II. Inheritance of Property, 344,
 Chap. III. Widows and their Property, 347.—Four classes of Wives, 348.—Age of marriage, 349.—Forbidden degrees, intermarriage with other races, *id.*—King may marry his sister or daughter, 350.
 Chap. IV. Inheritance of Courtiers and other officers of Government, restrictions on their power of bequeathing, portions of widows of different ranks 351,-2.—power of husband to pledge wife, 352,-3.
 Chap. V. Inheritance of Property as regards the Priesthood, Privileges of a Priest, 354.—his dress and possessions, 355.-6.—Brahmins, 356.—Number of priests, 357.—Purgatory, *id.*—Apostacy, *id.*—Public charities, beggars, 358.
 Chap. VI. Testamentary Power, 359.
 Chap. VII. Exclusion from property and Inheritance, 361.—Arbitration, *id.*—Obsequies and Superstitions. Superstitious practises relating to pregnancy, 361.—To women dying in child birth, *id.*—Adoption, 362.—Attendance of Priest on the sick, Bali formulæ repeated, 363.—Ceremonies on death, feast and entertainments, 364-5.—Burning of the body, 366.—Cenotaphs, *id.*—Superstitions connected with them—offerings at tombs of ancestors, 397.—Bali funeral Ritual, 368.

- Chap. VIII. Gifts 369.—private *id.*—From governors of Provinces, 370.—Foreign States. Tribute, gold and silver flowers, mode of receiving Ambassadors, 371.
- Chap. IX. Marriage, 372.—Polygamy, age of marriage, *id.*—Preliminaries, feasts and games, the ceremony, 373.—Bali Formulæ repeated 374.—Character of Siamese wives, 375.—Position and habits of Women in Siam, 376.—Chapters relating to women in the *P,hra Sara samkra*, 377.—Reciprocal duties of husband and wife from the *Meeteenthara*, *ib.*
- Chap. X. The parental authority, and obligations of the various members of a family to each other, 379.—Training, education, 379–382.—Etiquette, 381.—education of females, 382.
- Chap. XI. Slavery, 381.—Condition of slaves, *ib.*
- Chap. XII. Interest for money, 390—Deposits *ib.*—*Cham nam* or pledges, 391.—Wages, 392.—Copartnership, *ib.*—Sales, *ib.*—Contracts, 393.—Ceremonies and oath on entering into secret compacts for desperate purposes, *ib.*
- Chap. XIII. Tattang or administration of Justice, 394.—*Tatsamo-an*, of Judges and their corrupt practises, *ib.*—Mode of procedure, 396–7.—Courts of Judicature, 398.—Different orders of law officers; 399–401.—Justiciary forms, 401.—Expences of process, 403.
- Chap. XIV. Criminal law, 401.—Tortures, 405.—Evidence, proof by ordeal, 405.—Classes of persons excluded from being witnesses and reasons of exclusion, 407–14.—Oath taken by witnesses, 414–15.
- Chap. XV. Of specific crimes and their punishments, 416.—Modes of punishment, *ib.*—Murder, *ib.*—Inquests, 417.—The *tongok* for securing prisoners, *id.*—Instruments of torture, 418.—Theft, *id.*—Police system, 419.—Charms used by thieves, 420.—Assaults, threats to wound, striking parents, 421.
- Chap. XVI. Adultery, 422.—Punishment of adulteress, *id.*—Scale of fines, 423.—Separation and divorce, 424.—Eloquements, 424–5.
- Chap. XVII. Prisons, 426.—Killing animals, *id.*—Prohibitions, *ib.*—Practice, *ib.*—Invocation of the spirit before killing, *ib.*—Manlaughter, 327.—Suicide, *ib.*—Punishment of presumptive guilt, 428.—Of relatives of rebels, *ib.*—Effect of confession, *ib.*—Amusing judicial case from the Bali, 428–9.
- [For many incidental notices of Siamese life, manners, customs, superstitions &c., contained in this paper, see INDEX I. voce *Siam*.]

XXXI.

- MISCELLANEOUS NOTICES, CONTRIBUTIONS, AND CORRESPONDENCE :
 Earthquake in Java, 77.—The Tin Mines of Malacca, letter from L. NEUBRONNER, Esq., *ib.*—Gutta Percha, Memorandum by Dr. d'ALMEIDA, 78.—Specimens of Coal from Labuan, Pulo Chirmin, Bornco Proper, and Formosa, 78–80.—Specimens of Rocks from Pulo Ladda, Pulo Lankawi and the Mainland of the Peninsula between Kiddah and Junkceylon, 80–81.—Specimens of Gold from Pankallang Bukit, and of Gold and Tin from Gunong in Johore, 81.—Case of Poisoning by Mushrooms, 81–82.
 Earthquake and eruption in Ternate, 168.—Falling in of a mountain in Timor, *ib.*—Correspondence, *ib.*
- MALAY PANTUNS, 150, 924.

INDEX. 431.

I. GENERAL INDEX.

II. INDEX OF NAMES, AND GLOSSARY.

NOTE EXPLANATORY OF THE INDEX.

The Index has been prepared under a conviction that the permanent value of a work like this depends greatly upon the facility with which the information which it contains can be referred to. Although the table of contents is unusually full, it is, from its nature, in so far defective that the reader cannot ascertain, at a glance, what information the volume contains on any particular subject. This defect is remedied by the Index, which will also be found of great utility for purposes of comparison. The ethnographical enquirer, for instance, desirous of comparing the customs of the different nations and tribes described as to *marriage, burial, &c.*, is enabled by the Index to do so by reference to those heads. While our knowledge of the Archipelago remains, as at present, in its infancy, and we possess neither a general gazetteer, nor even the geography of any one island, and have no complete vocabulary of a single language, it appears expedient to introduce into the Index the names of places, plants, animals &c., occurring in the volume, and also those of men, offices, human arts &c., The Malayan names of Malayan objects are more familiar to local writers than any equivalents which could be found for them in their own language, and they are hence sometimes mentioned without any explanation. In such cases the Index will supply the omission.

For easier reference the matter of the Index has been divided into two parts. The first, under the title GENERAL INDEX, contains 1st. an alphabetically arranged summary of the volume more minute than the table of contents, but referring to it when practicable, as under the heads *Cochin China, Binua &c.*, where it seemed inexpedient to repeat the full analysis of the papers on those subjects given in the Contents, 2nd. a reference under the general titles, ETHNOLOGY, GEOLOGY, GEOGRAPHY, ARTS, CUSTOMS &c., to all the notices appertaining to each of these divisions of knowledge. The title of the second part, INDEX OF NAMES AND GLOSSARY, explains itself. In itself it will be found to possess considerable ethnological value by bringing together names of "persons, places and things" used by different tribes, and thus facilitating comparison.

P R E F A C E.

THE design of this Journal has been so fully explained in the Prospectus, that we might have dispensed with any Preface, if we had not been desirous of recording the cordial reception which has been given to the proposal to establish it. In particular the warm interest which the Honorable COLONEL BUTTERWORTH, C. B. Governor of the Straits Settlements, has from the first taken in the project, and the cordial encouragement and support which he has given to it, demand a special acknowledgement. The Bengal Government have countenanced the work in the manner recommended by him, not only by liberally subscribing to it, but by authorizing every facility to be given for the communication of information by the Officers of Government in the Straits Settlements. From most of the local Authorities we have received assurances of their aid ; and the knowledge which they possess, and the opportunities which they enjoy of obtaining information, give a high value to their assistance. Many Residents in the Straits, whose names will appear in good time where we most wish to see them, had no sooner become acquainted with our design than they promised contributions ; and the valuable article on Gutta Percha which we are enabled to present in the first number, with its important and original information, is an earnest how able and willing they are to co-operate in rendering our countrymen better acquainted with the Archipelago and its resources.

We shall endeavour to keep two principal objects steadily in view. The first is, to present as many papers as possible that are either original or new to the English reader. The second is, to make the Journal a work of reference on all subjects connected with the Archipelago.

With a view to the first object, the papers of contributors will always have a preference. Next to these we shall most largely draw upon the foreign publications in the Archipelago. But as papers of interest relating to this region are sometimes published on the continent of Europe, and remain unknown to English readers, we shall also avail of them as opportunity may offer. For the accomplishment of the second object, we shall from time to time republish papers that have already appeared in English, but may have had a limited or an entirely local circulation, or are no longer procurable. And we shall notice works and papers on the Archipelago and Eastern Asia published in England and America, partly with the same view, and partly to keep all our Eastern readers and contributors informed of every important accession made to our knowledge of the field from which the Journal takes its gleanings. To facilitate reference until a volume is complete, we shall with each number give an analytic table of contents, which will serve as the foundation of a full table of contents and index to be issued, with a title page for the volume, at the end of each year. -

Unless we adopt a quarterly issue, it will be impossible to give to each number that variety in its matter which might be agreeable to many readers. But for the reason stated in the Prospectus, and in order also to enable us to meet the wishes of contributors when early publication may be an object, we have resolved to commence with a monthly issue. We must therefore request our readers to bear in mind, that the nature of the work requires that it be judged not by a number, but by a volume. It may indeed sometimes happen that we shall be obliged to occupy a whole number with one article, and that on a subject which many readers may not find interesting. But we have already besought their toleration of such chances in our Prospectus.

P R O S P E C T U S
OF
The Journal of the Indian Archipelago
AND
Eastern Asia.

OBJECT OF THE PROPOSED JOURNAL.

THE attention which, for some time past, has been attracted to the Indian Archipelago, and its recent approximation to Europe by the establishment of steam communication, encourage the hope that the time has now arrived when a Journal devoted to this region may meet with readers. After the period when the writings of Mr. MARSDEN, Sir T. S. RAFFLES and Mr. CRAWFORD first systematically brought the light of European observation and science to bear upon some portions of it, the Archipelago only at intervals awakened the interest of the English public, and, so far as they were concerned, it nearly settled down into its previous obscurity. It is true there has generally been two and frequently more newspapers in the British Settlements on the Straits of Malacca, but their principal object having been the discussion of commercial, political or purely local topics, their European circulation has been chiefly amongst those who have an immediate interest in the Eastern trade. The consequence has been that many valuable and interesting observations, which from time to time have been published in them, never received that diffusion and attention which they deserved.* While no adequate means have been taken during the last twenty years to preserve the interest of the English public in the Archipelago, and the writings of MARSDEN, RAFFLES and CRAWFORD, deficient as their authors admitted them to be, have continued

* Should the support which the projected Journal may receive, enable us to enlarge it hereafter, we intend to reprint the more important and scarce of these and other detached papers that have appeared, relative to the Archipelago.

to represent the sum of English knowledge of its races and productions, a great amount of talent and research has, in reality, been devoted to it. When we replaced the Dutch in their Eastern possessions, we seem, at the same time, to have made over to them the science of the Archipelago. The scientific ardour which was kindled in Java by Sir T. S. RAFFLES and his coadjutors, did not burn out when we retired from it, but was communicated to our successors, and has not only illustrated many subjects which we left in obscurity, but, receiving a fresh stimulus and direction from every advance of science on the Continent of Europe, has shed new light on those which had most attracted our regard. It was in the deep regret with which we saw that the Eastern researches of the Dutch were unheeded, because unknown, in England, that the idea of the proposed Journal originated. It is this feeling that, in the absence of any Society in the British Settlements, devoted like those at Calcutta, Madras, Bombay, Ceylon, and Hongkong to the collection of general information, has induced us to overcome our reluctance to appear before the public as the originators of a periodical partaking, in any degree, of a general scientific character. If a hearty zeal for knowledge, a willingness to give all our leisure to its extension, and a determination to be accurate and laborious, may enable us to do some service to men of science, we shall not regret that, in following up our own limited pursuits, we became acquainted with the extensive acquisitions of our Dutch neighbours, and at once saw that we should be more likely to make ourselves useful by communicating these to our countrymen, than by confining ourselves to original observations. The chief purpose of the Journal will be, by translations, compilations and notices from Dutch writings, to make English readers acquainted with their researches. They embrace a wide and singularly varied field*, and extend to so many subjects both of popular and of purely scientific interest, that we shall be compelled to give the Journal a more mixed character than may be altogether acceptable to any one class of readers. But as

* To those who, in ignorance of the later researches of the Dutch, and of the new and attractive character which ethnographical science has everywhere assumed, chiefly through the discoveries of the great

we do not doubt that all who may support the undertaking will cordially approve of its object,—which is to gather and present to European readers, from all available sources, *knowledge*, in the widest sense, of the Indian Archipelago,—we trust that the general reader who may take up the Journal will make allowance for the space occupied by scientific subjects, and that the scientific reader, in his turn, will not quarrel with its more miscellaneous ingredients. We anticipate however from the prevailing taste for general knowledge, and the growing tendency to treat all kinds of subjects in a scientific or accurate and thoughtful spirit, that our largest class of readers will be sufficiently catholic in their sympathies to find “good in every thing” that we shall lay before them. It is only by the union of subjects generally kept separate that we can hope to attain sufficient support at the outset to enable us to proceed, and it is fortunate that many, even of the scientific papers of the Dutch explorers are combined with so much of the personal narrative of their explorations that they are well adapted for our purpose. Should a desire afterwards be felt to have a strictly scientific separately from a popular miscellany, we shall readily alter our plan provided our subscribers are numerous enough to maintain two periodicals.

While the Journal will principally be a channel for communicating to European readers the past and contemporaneous writings of the Dutch on the Archipelago generally, it will, we trust, serve as a focus in which the observations of English and American residents in Java, Bali, Borneo, the Philippines, Siam, &c., may be concentrated. We say English and American, because, although we shall of course be always happy to receive communications from any person, we are most anxious to avoid

German philologists, may think that Raffles and Crawford exhausted the scientific wealth of the Archipelago, or even of the single island to which their personal observations were chiefly directed, it may be sufficient to remark that, if all the islands were brought together, they would form a continent as large as Great Britain, France, Spain, Portugal, Italy, Switzerland, Prussia, Belgium, Holland and Denmark united, and that they exhibit a greater diversity of tribes, languages, and natural productions, than any other region of equal extent in the world.

every appearance of offering the use of our Journal to the Dutch contributors to the periodicals of Batavia. We are indebted to Dr. W. R. Baron VAN HOËVELL, the President of the Batavian Society, and the learned, able, and zealous editor of the leading scientific and literary Journal there, for constant and most liberal assistance in making ourselves acquainted with the researches of himself and his countrymen, and we shall be too glad to continue to do so, and to make our readers participate in the results, by translating from the Dutch. It will not be the least beneficial effect of our Journal, that we shall be able to introduce our neighbours to our English readers in a character in which they have not been accustomed to view them, and thereby, we trust, help to soften those asperities of feeling that are apt to be occasionally engendered when Dutch policy seems to conflict with British interest.

It will, in a more particular manner, be a Journal of the British Settlements on the Straits of Malacca, and of the Malayan Peninsula, to which our own observations are and will be chiefly directed. While Sumatra and Java have been investigated by English writers, the Peninsular extremity of Asia, with which we are now more immediately connected than with the Archipelago, has remained comparatively unexplored; for the published researches of COLONEL LOW have chiefly related, although they have by no means been restricted, to the Siamese language, in which he is one of the most distinguished scholars of the age, and Captain NEWBOLD'S original contributions, highly valuable as they were, hardly extended beyond Malacca and the inland states adjoining it. We have for some years omitted no opportunity of extending our knowledge respecting the Peninsula, and this will continue to be the chief object of our own enquiries. Those whose investigations have been more varied and searching, and all who have had, or may have, opportunities of adding to our knowledge of it in any particular, will, we earnestly beg, join in our labours. Occupied by many interesting states and tribes,—forming as it did once, perhaps the principal, channel by which the stream of human migration spread from the great Table Land of Asia to the Archipelago and the remotest islands of Polynesia,—anciently the seat of one of the most famous Hindu

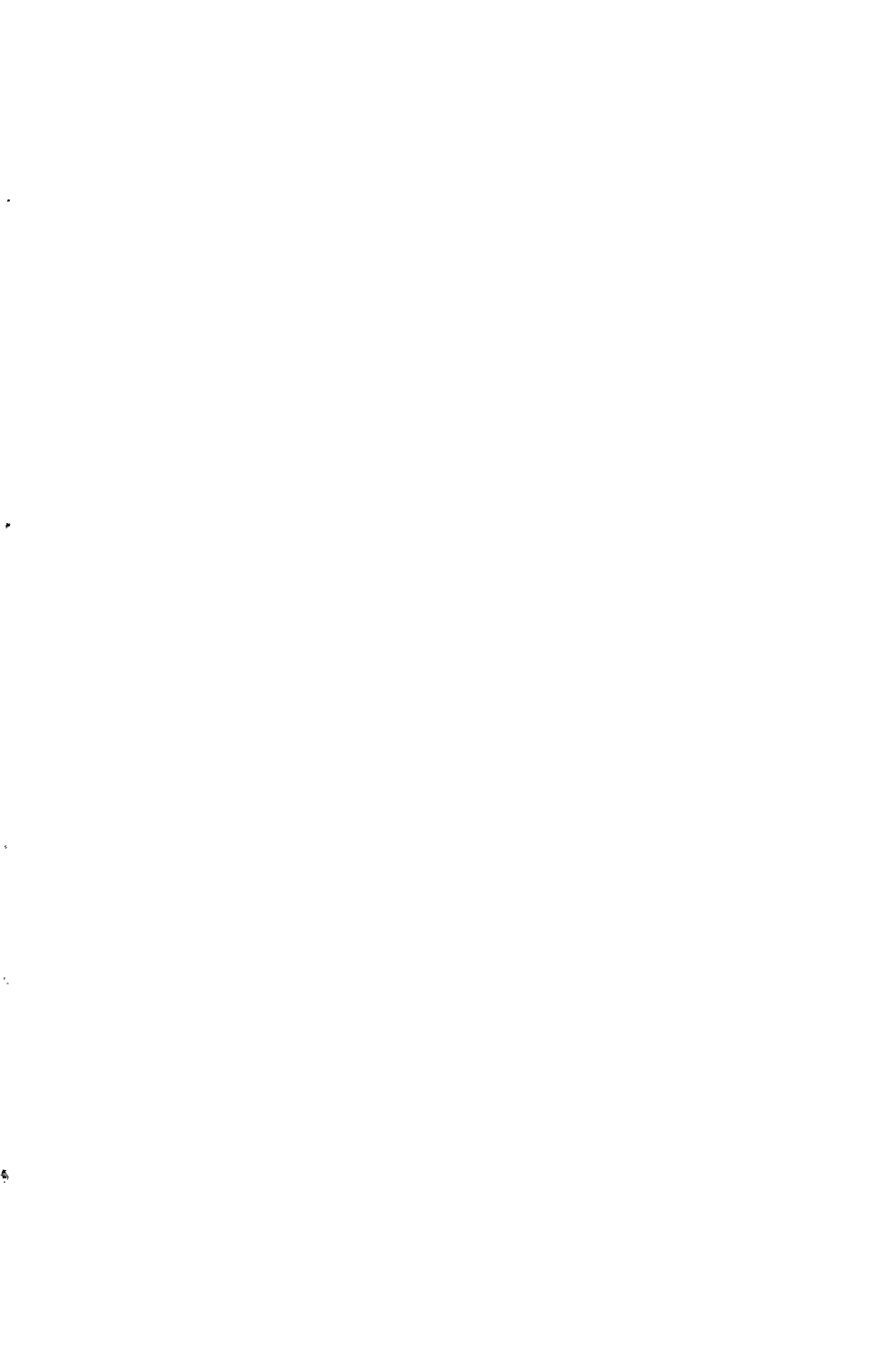
colonies, and, in modern ages the great field of Malayan history, —it deserves to be rescued from neglect. Its economical value has only lately begun to excite adequate attention, but it needs little foresight to pronounce that in a few years many of its plains, so well adapted for the production of Sugar and all other tropical commodities, and its mountain and hill ranges, which are amongst the richest magazines of tin ore in the world, will be occupied and explored by British enterprize.

PLAN OF THE JOURNAL.

The bulk of the Journal will consist of articles, chiefly translated from the Dutch and Spanish, relating to Sumatra, Java, Borneo, Celebes, the Philippines and the Moluccas, Bali and other islands of the Archipelago. These will be very varied in their nature, embracing as they will, the history, language, literature, and ethnography of the various races who inhabit this great region, and contributions to almost every department of natural history and physical science, as well as topographical, agricultural, economical and miscellaneous subjects. Original papers of a similar nature, but more limited range, will from time to time be given on the countries of the Malay Peninsula, Siam, Borneo, and occasionally we hope on Cochin China, &c. In particular, papers on the physical geography and geology of the Peninsula and the adjacent islands, on the history, language, literature, manners and customs of the Malays, and on the aboriginal mountain races will be frequently, although not regularly, given. The best Malayan prose and poetical works will be printed, accompanied by translations and explanatory and critical notes. We are prepared to commence a series of these works and translations in the first number of the Journal, and to continue it uninterruptedly till we have published all the productions of Malayan writers that deserve to be preserved. The British Settlements, with their motley population, and great diversity of ethnographical riches, will furnish abundant interesting matter. We do not venture to promise that China, Australia and the farther East will regularly contribute to our stores, but the central position of Singapore, relatively to intercourse by steam with Europe, leads us to entertain a strong hope that we

shall not want original communications from these countries when the objects of the Journal become known to our countrymen and other foreigners resident there.

The extension of the commerce and influence of the British and Dutch in the Archipelago, the character and tendency of their respective policies, the condition of the British Settlements, their influence on the Asiatics around us, and the prospects and progress of education and christianity in these regions, will from time to time be reviewed, but, we think we may give assurance, in a spirit free from national or sectarian bias, and regarding only the advancement of the Archipelago. In order to do our best to give the Journal a fair start, we shall for a time restrict its size and price, in the hope that it will thereby meet with general support, and should its receipts more than cover its cost, we shall apply the surplus in extending our means of information and giving increased value to it. At first, therefore, it will consist of a monthly octavo of thirty two or forty eight pages (according to the number of subscribers) at an annual subscription of five dollars; a price that, in consequence of the high cost of printing in Singapore, and the large number of copies which the design of the Journal will require us to present to Societies, &c., will hardly repay our outlay, unless its circulation be much greater than we can venture to anticipate. Lithographs will occasionally be given. It may sometimes be expedient to increase the size of a number one half or even to double it, which will be done without any additional charge. After much consideration a monthly has been considered preferable to a quarterly issue, because, although it may at times compel us to break a long article into parts, it will have the great advantage of enabling us to keep pace with the contemporaneous labours of the Dutch in the Archipelago, and to communicate their results to the English reader at the earliest possible period after their publication in Batavia.





ADyak.

THE
JOURNAL
OF
THE INDIAN ARCHIPELAGO
AND
EASTERN ASIA.

THE PRESENT CONDITION OF THE INDIAN ARCHIPELAGO.

WE should wish, on the threshold of our labours, to bring into one general popular view some of the most characteristic features of the Indian Archipelago as a whole,—to yield ourselves for a while to the impression which Nature here makes on the senses and feelings of the European,—to trace her more permanent influences on the races who have lived for ages under her power,—to enquire to what condition these have now been brought by their past history,—and to search amongst the elements of change which may be working, or are about to come into operation, amongst them, at the present day, for those which are most likely to determine their future. But the very greatness and variety of the subject which so strongly attract the mind, subdue the hope of being able, within the narrow room allowed us here, to present any adequate picture of it, and compel us to leave to the reader to clothe with the distinctness and freshness of truth, the dry and fragmentary generalities which we must be satisfied to lay before him. It is in no way our design to give a methodical review of the geography and history of the Archipelago. This it would be impossible to do, with any accuracy, in the space to which we must confine ourselves, and we therefore assume that our readers have

such a knowledge of these that, in following our remarks, they will recall, or perhaps sometimes approach from new points, facts with which they have already made acquaintance, and even that mere allusions, where we cannot afford more, will expand in their memories into the fullness of reality.

The first and most general consideration in a physical review of the Archipelago is its relation to the Continent of Asia. In the platform, on which the largest and most important lands are distributed, we see a great root which the stupendous mass of Asia has sent forth from its south eastern side, and which, spreading far to the south beneath the waters of the Indian and Pacific Oceans, and there expanding and shooting up by its plutonic and volcanic energy, has covered them, and marked its tract, with innumerable islands. That there is a real and not merely a fanciful connection between the Archipelago and Asia is demonstrable, although, when we endeavour to trace its history, we are soon lost in the region of speculation. So obvious is this connection that it has been a constant source of excitement to the imagination, which, in the traditions of the natives, and in the hypotheses of Europeans, has sought its origin in an earlier geographical unity. Certainly, if, in the progress of the elevatory and depressing movements which the region is probably undergoing even now, the land were raised but a little, we should see shallow seas dried up, the mountain ranges of Sumatra, Borneo, and Java become continental like those of the Peninsula, and great rivers flowing not only in the Straits of Malacca, whose current early navigators mistook for that of an inland stream, but through the wide valley of the China Sea, and by the deep and narrow Strait of Sunda, into the Indian Ocean. Thus the unity would become geographical, which is now only geological. That the great platform from which only mountains and hills rose above the sea level, till the materials drawn from them by the rains were rolled out into the present alluvial plains, is really an extension of the Asiatic mass, appears evident from the facts, amongst many others which require a separate geological paper for their discussion, and would be less readily

appreciated by the general reader, that its direction, as a whole, is that which a continuation of south-eastern Asia, under the same plutonic action which produced it, would possess;—the mountain ranges, which form the latter, sink into it irregularly in the lines of their longitudinal axes;—in one zone, that of the Peninsula, the connection is an actual geographical one;—the Peninsula is obviously continued in the dense clusters of islands and rocks, stretching on the parallel of its elevation and of the strike of its sedimentary rocks, from Singapore to Banka, and almost touches Sumatra, the mountain ranges of which are, notwithstanding, parallel to it;—Borneo and Celebes appear to represent the broader or eastern branch of the Indo-Chinese Peninsula, from which they are separated by the area of the China Sea supposed to be sinking;—and, finally, nearly the whole Archipelago is surrounded by a great volcanic curve rooted in Asia itself, and the continuity of which demonstrates that the platform and the continental projection with which it is geographically connected are really united, at this day, into one geological region by a still vigorous power of plutonic expansiveness, no longer, to appearance, forming hypogene elevations, but expending itself chiefly in the numerous volcanic vents along the borders where it sinks into the depths of the ocean.

Whether the present platform ever rose above the level of the sea and surrounded the now insular eminences with vast undulating plains of vegetation, instead of a level expanse of water, we shall not here seek to decide, although we think that Raffles and others who have followed in his steps too hastily connected the supposed subsidence with the existing geological configuration of the region, and neglected the all important evidence of the comparative distribution of the living flora and fauna, which seems to prove that the ancient southern continent, if such there was, had subsided before they came into existence. No conclusive reasons have yet been adduced why we should consider the islands of the Archipelago as the summits of a partially submerged, instead of a partially emerged, continent. But whether it was the sinking of the continent that deluged all the southern lowlands of Asia leaving only the mountain summits visible, or its elevation that was arrested by the ex-

haustion of the plutonic energy, or the conversion of its upheaving into an ejecting action, on the opening of fractures along the outskirts of the region, before the feeblér action there had brought the sea bed into contact with the atmosphere, the result has been to form an expanse of shallow seas and islands elsewhere unequalled in the world, but perhaps not greater in proportion to the wide continental shores, and the vast bulk of dry land in front of which it is spread out, than other archipelagoes are to the particular countries, or continental sections, with which they are connected.

The forms and positions of these islands bear an older date than that of any limited subsidence or elevation of the region after its formation. They were determined by the same forces which originally caused the platform itself to swell up above the deep floor of the southern ocean; and it was one prolonged act of the subterranean power to raise the Himalayas into the aërial level of perpetual snow, to spread out the submarine bed on which the rivers were afterwards to pile the hot plains of Bengal, and to mould the surface of the southern region, so that when it rose above, or sunk into, the sea to certain levels, the mutual influences of air and sea and land should be so balanced, that while the last drew from the first a perennial ripeness and beauty of summer, it owed to the second a perennial freshness and fecundity of spring. Hence it is that, in the Archipelago, while the bank of black mud daily overflowed by the tides is hidden beneath a dense forest, and the polypifer has scarcely reared its tower to the sea's surface before it is converted into a green islet, the granitic rocks of the highest plutonic summits, and the smoke of the volcanic peaks, rise from amidst equally luxuriant, and more varied, vegetation. Certainly, the most powerfully impressive of all the characteristics of the Archipelago is its botanical exuberance, which has exercised the greatest influence on the history and habits of its human inhabitants, and which, as the most obvious, first excites the admiration of the voyager, and from its never staling, because ever renewing itself in fresh and changeful beauty, retains its hold upon our feelings to the last.

When we enter the seas of the Archipelago we are in a

new world. Land and ocean are strangely intermingled. Great islands are disjoined by narrow straits, which, in the case of those of Sunda, lead at once into the smooth waters and green level shores of the interior from the rugged and turbulent outer coast, which would otherwise have opposed to us an unbroken wall more than two thousand miles in length. We pass from one mediterranean sea to another, now through groups of islets so small that we encounter many in an hour, and presently along the coasts of those so large that we might be months in circumnavigating them. Even in crossing the widest of the eastern seas, when the last green speck has sunk beneath the horizon, the mariner knows that a circle drawn with a radius of two days sail would touch more land than water, and even that, if the eye were raised to a sufficient height, while the islands he had left would reappear on the one side, new shores would be seen on almost every other. But it is the wonderful freshness and greenness in which, go where he will, each new island is enveloped, that impresses itself on his senses as the great distinctive character of the region. The equinoctial warmth of the air, tempered and moistened by a constant evaporation, and purified by periodical winds, seems to be imbued with penetrating life-giving virtue, under the influence of which even the most barren rock becomes fertile. Hence those groups of small islands which sometimes environ the larger ones like clusters of satellites, or mark where their ranges pursue their course beneath the sea, often appear, in particular states of the atmosphere when a zone of white quivering light surrounds them and obliterates their coasts, to be dark umbrageous gardens floating on a wide lake, whose gleaming surface would be too dazzling were it not traversed by the shadows of the clouds, and covered by the breeze with an incessant play of light and shade. Far different from the placid beauty of such scenes is the effect of the mountain domes and peaks which elsewhere rise against the sky. In these the voyager sees the grandeur of European mountains repeated, but with all that is austere or savage transformed into softness and beauty. The snow and glaciers are replaced by a mighty forest, which fills every ravine with dark shade, and arrays every peak and ridge in

glancing light. Even the peculiar beauties which the summits of the Alps borrow from the atmosphere, are sometimes displayed. The Swiss, gazing on the lofty and majestic form of a volcanic mountain, is astonished to behold, at the rising of the sun, the peaks inflamed with the same rose red glow which the snowy summits of Mont Rosa and Mont Blanc reflect at its setting, and the smoke wreaths, as they ascend from the crater into mid air, shining in golden hues like the clouds of heaven.*

But serene in their beauty and magnificence as these mountains generally appear, they hide in their bosoms elements of the highest terrestrial sublimity and awe, compared with whose appalling energy, not only the bursten lakes and the rushing avalanches of the Alps, but the most devastating explosions of Vesuvius or Etna, cease to terrify the imagination. When we look upon the ordinary aspects of these mountains, it is almost impossible to believe the geological story of their origin, and if our senses yield to science, they tacitly revenge themselves by placing in the remotest past, the era of such convulsions as it relates. But the nether powers though imprisoned are not subdued. The same telluric energy which piled the mountain from the ocean to the clouds, even while we gaze in silent worship on its glorious form, is silently gathering in its dark womb, and time speeds on to the day, whose coming science can neither foretell nor prevent, when the mountain is rent; the solid foundations of the whole region are shaken; the earth is opened to vomit forth destroying fires upon the living beings who dwell upon its surface, or closed to engulf them; the forests are deluged by lava, or withered by sulphureous vapours; the sun sets at noonday behind the black smoke which thickens over the sky, and spreads far and wide, raining ashes throughout a circuit hundreds of miles in diameter; till it seems to the superstitious native that the fiery abodes of the volcanic deities are disembowelling themselves, possessing the earth, and blotting out the heavens. The living remnants of the generation whose doom it was to inhabit Sumbawa in 1815, could tell us that this picture is but

* M. Zollinger in describing Mount Semirú in Java notices this singular resemblance to the mountains of his native country.

a faint transcript of the reality, and that our imagination can never conceive the dreadful spectacle which still appals their memories. Fortunately these awful explosions of the earth, which to man convert nature into the supernatural, occur at rare intervals; and, though scarcely a year elapse without some volcano bursting into action, the greater portion of the Archipelago being more than once shaken, and even the ancient granitic floor of the Peninsula trembling beneath us, this terrestrial instability has ordinarily no worse effect than to dispel the illusion that we tread upon a solid globe, to convert the physical romance of geological history into the familiar associations of our own lives, and to unite the events of the passing hour with those which first fitted the world for the habitation of man.

We have spoken of the impression which the exterior beauty of the Archipelago makes upon the voyager, and the fearful change which sometimes comes over it, when the sea around him is hidden beneath floating ashes mingled with the charred wrecks of the noble forests which had clothed the mountain sides; but, hurried though we are from one part of our slight sketch to another, we cannot leave the vegetation of this great region without looking upon it more closely. To recall the full charms, however, of the forests of the Archipelago, — which is to speak of the Archipelago itself, for the greater portion of it is at this moment, as the whole of it once was, clothed to the waters edge with trees,—we must animate their solitudes with the tribes which dwell there in freedom, ranging through their boundless shade as unconscious of the presence of man, and as unwitting of his dominion, as they were thousands of years ago, when he did not dream that the world held such lands and such creatures.

When we pass from the open sea of the Archipelago into the deep shade of its mountain forests, we have realized all that, in Europe, our fancies ever pictured of the wildness and beauty of primeval nature. Trees of gigantic forms and exuberant foliage rise on every side: each species shooting up its trunk to its utmost measure of development, and striving, as it seems, to escape from the dense crowd. Others, as if no room were left for them

to grow in the ordinary way, emulate the shapes and motions of serpents, enwrap their less pliant neighbours in their folds, twine their branches into one connected canopy, or hang down, here, loose and swaying in the air, or in festoons from tree to tree, and there, stiff and rooted like the yards which support the mast of a ship. No sooner has decay diminished the green array of a branch, than its place is supplied by epiphytes, chiefly fragrant orchidaceæ, of singular and beautiful forms. While the eye in vain seeks to familiarize itself with the exuberance and diversity of the forest vegetation, the ear drinks in the sounds of life which break the silence and deepen the solitude. Of these, while the interrupted notes of birds, loud or low, rapid or long-drawn, cheerful or plaintive, and ranging over a greater or less musical compass are the most pleasing; the most constant are those of insects, which sometimes rise into a shrill and deafening clangour; and the most impressive, and those which bring out all the wildness and loneliness of the scene, are the prolonged complaining cries of the únkas, which rise, loud and more loud, till the twilight air is filled with the clear, powerful, and melancholy sounds. As we penetrate deeper into the forest, its animals, few at any one place, are soon seen to be, in reality, numerous and varied. Green and harmless snakes hang like tender branches. Others of deeper and mingled colours, but less innocuous lie coiled up, or, disturbed by the human intruder, assume an angry and dangerous look, but glide out of sight. Insects in their shapes and hues imitate leaves, twigs and flowers. Monkeys, of all sizes and colours, spring from branch to branch, or, in long trains, rapidly steal up the trunks. Deer, and amongst them the graceful palandoh, no bigger than a hare and celebrated in Malayan poetry, on our approach fly startled from the pools which they and the wild hog most frequent. Lively squirrels, of different species, are everywhere met with. Amongst a great variety of other remarkable animals which range the forest, we may, according to our locality, encounter herds of elephants, the rhinoceros, tigers of several sorts, the tapir, the bábírúsa, the orangútan, the sloth; and, of the winged tribes, the gorgeously beautiful birds of paradise, the loris, the peacock, and the argus pheasant. The mangrove rivers and creeks are haunted by huge

alligators. An endless variety of fragile and richly colored shells not only lie empty on the sandy beaches, but are tenanted by pagurian crabs which, in clusters, batten on every morsel of fat seaweed that has been left by the retiring waves. The coasts are fringed with living rocks of beautiful colours, and shaped like stars, flowers, bushes and other symmetrical forms. Of multitudes of peculiar fishes which inhabit the seas, the dugong or Malayan mermaid, most attracts our wonder.

Before we leave this part of our subject, we would assure any European reader who may suspect that we have in aught written too warmly of the physical beauty of the Archipelago, that the same Nature which, in the west, only reveals her highest and most prodigal terrestrial beauty to the imagination of the poet, has here ungirdled herself, and given her wild and glowing charms, in all their fullness, to the eye of day. The ideal has here passed into the real. The few botanists who have visited this region declare, that from the multitude of its noble trees, odorous and beautiful flowers, and wonderful vegetable forms of all sorts, it is inconceivable in its magnificence, luxuriance, and variety. The zoologists, in their turn, bear testimony to the rare, curious, varied and important animals which inhabit it, and the number and character of those already known is such as to justify one of the most distinguished of the day in expressing his belief, that "no region on the face of the earth would furnish more novel, splendid, or extraordinary forms than the unexplored islands in the eastern range of the Indian Archipelago."

Hitherto we have faintly traced the permanent influence of the physical configuration of the Archipelago in tempering the inter-tropical heat, regulating the monsoons, determining the distribution of plants and animals, and giving to the whole region its peculiar character of softness and exuberant beauty. But when its rock foundations were laid, the shadow of its future human, as well as natural, history spread over them. Its primal physical architecture, in diminishing the extent of dry land, has increased the variety in the races who inhabit it; while the mineralogical constitution of the insulated elevations, the manner in which they are dispersed throughout its seas, and all the meteoric and botanical consequences, have affected them in innumerable modes.

Again, as we saw that the platform of the Archipelago is but an extension of the great central mass of Asia, and that the direction of the subterranean forces had determined the ranges of the land, so we find that its population is but an extension of the Asiatic families, and that the direction of migration was marked out by the same forces. But, separated by the sea from the great plains and vallies of the continent, having the grand routes of communication covered by mountains and dense and difficultly penetrable forest, the Archipelago could not be peopled by hordes, but must have owed its aborigenes to the occasional wandering of small parties or single families. The migrations from one island to another were probably equally limited and accidental; and the small and scattered communities in such as were inhabited, must, for a long-period, have remained secluded from all others, save when a repetition of similar accidents added a few more units to the human denizens of the forests.

We cannot here attempt to retrace in the most concise manner the deeply interesting history of the tribes of the Archipelago, so exciting from the variety of its elements, and its frequent, though not impenetrable, mystery. We can but distinguish the two great eras into which it divides itself,—that, at the commencement of which some of the inhabitants of the table land of Asia, having slowly traversed the south eastern vallies and ranges, a work perhaps of centuries, appeared on the confines of the Archipelago, no longer nomades of the plains but of the jungles, with all the changes in ideas, habits, and language which such transformation implies, and prepared by their habits to give rise, under the influences of their new position, to the nomades of the sea;—and the second era, that, at the commencement of which the forest and pelagic nomades, scattered over the interior, and along the shores, of the islands of the Archipelago, in numerous petty tribes, each with some peculiarities in its habits and language, but all bearing a family resemblance, were discovered in their solitudes by the earliest navigators from the civilized nations of the continent.

The ensuing, or what, although extending over a period of about two thousand years, we may term the modern, history of the Archipelago, first exhibits the Klings from southern India,—who were a civilized maritime people probably three thousand years ago,—

frequenting the islands for their peculiar productions, awakening a taste for their manufactures in the inhabitants, settling amongst them, introducing their arts and religion, partially communicating these and a little of their manners and habits to their disciples, but neither by much intermarriage altering their general physical character, nor by moral influence obliterating their ancient superstitions, their comparative simplicity and robustness of character, and their freedom from the effeminate vanity which probably then, as in later times, distinguished their teachers. At a comparatively recent period, Islamism supplanted Hinduism in most of the communities which had grown up under the influence of the latter, but it had still less modifying operation; and, amongst the great bulk of the people, the conversion from a semi-Hindu condition to that of Mahomedanism was merely formal. Their intellects, essentially simple and impatient of discipline and abstract contemplation, could as little appreciate the scholastic refinements of the one religion, as the complex and elaborate mythological machinery and psychological subtleties of the other. While the Malay of the nineteenth century exhibits in his manner, and in many of his formal usages and habits, the influence which Indians and Arabs have exerted on his race, he remains, physically and morally, in all the broader and deeper traits of nature, what he was when he first entered the Archipelago; and even on his manners, usages, and habits, influenced as they have been, his distinctive original character is still very obviously impressed.

We cannot do more than allude to the growth of population and civilization in those localities which, from their extent of fertile soil or favorable commercial position, rose into eminence, and became the seats of powerful nations. But it must be borne in mind that, although these localities were varied and wide spread, they occupied but a small portion of the entire surface of the Archipelago, and that the remainder continued to be thinly inhabited by uncivilized tribes, communities, or wandering families.

Prevented, until a very recent date, by stubborn prejudices and an overweening sense of superiority, from understanding and influencing the people of the Archipelago, the European dominations have not directly affected them at all; and the indirect operation of the new power, and mercantile and political policies, which

they introduced has been productive of much evil and very little good. While, on the one hand, the native industry and trade have been stimulated by increased demand and by the freedom enjoyed in the English ports, they have, on the other hand, been subjected by the Portuguese, English and Dutch, to a series of despotic restraints, extending over a period of three hundred years : and, within the range of the last nation's influence, continued, however modified, to this hour : which far more than counterbalance all the advantages that can be placed in the opposite scale.

The effect of the successive immigrations, revolutions and admixtures which we have indicated or alluded to, has been, that there are now in the Archipelago an extraordinary number of races, differing in colour, habits, civilization, and language, and living under forms of government and laws, or customs, exhibiting the greatest variety. The same cause which isolated the aborigenes into numerous distinct tribes and kept them separate,—the exuberant vegetation of the islands,—has resisted the influence, so far as it was originally amalgamating, of every successive foreign civilization that has dominated ; and the aboriginal nomades of the jungle and the sea, in their unchanged habits and mode of life, reveal to their European contemporary the condition of their race, at a time when his own forefathers were as rude and far more savage. The more civilized races, after attaining a certain measure of advancement, have been separated by their acquired habits from the unaltered races, and have too often turned their superiority into the means of oppressing, and thereby more completely imprisoning in the barbarism of the jungles, such of them as lived in their proximity. So great is the diversity of tribes, that if a dry catalogue of names suited the purpose of this sketch, we could not afford space to enumerate them. But, viewing human life in the Archipelago as a general contemplation, we may recall a few of the broader peculiarities which would be most likely to dwell on the memory after leaving the region.

In the hearts of the forests we meet man scantily covered with the bark of a tree, and living on wild fruits, which he seeks with the agility of the monkey, and wild animals, which he tracks with the keen eye and scent of a beast of prey, and slays with a poisoned arrow projected from a hollow bambú by his breath.

In lonely creeks and straits we see him in a small boat, which is his cradle, his house, and his bed of death; which gives him all the shelter he ever needs, and enables him to seize the food which always surrounds him. On plains, and on the banks of rivers, we see the civilized planter converting the moist flats into rice fields, overshadowing his neat cottage of bambú, nibong, and palm leaves with the graceful and bounteous cocoanut, and surrounding it with fruits, the variety and flavour of which European luxury might envy, and often with fragrant flowering trees and shrubs which the greenhouses of the West do not possess. Where the land is not adapted for wet rice, he pursues a system of husbandry which the farmer of Europe would view with astonishment. Too indolent to collect fertilizing appliances, and well aware that the soil will not yield two successive crops of rice, he takes but one, after having felled and burned the forest; and he then leaves nature, during a ten years fallow, to accumulate manure for his second crop in the vegetable matter elaborated by the new forest that springs up. Relieved from the care of his crop he searches the forests for ratans, canes, timber, fragrant woods, oils, wax, gums, caoutchouc, gutta-percha, dyes, camphor, wild nutmegs, the tusks of the elephant, the horn and hide of the rhinoceros, the skin of the tiger, parrots, birds of paradise, argus pheasants, and materials for mats, roofs, baskets and receptacles of various kinds. If he lives near the coast, he collects fish, fish maws, fish roes, slugs (trepang), seaweed (agaragar), tortoiseshell, rare corals and mother of pearl. To the eastward, great fishing voyages are annually made to the shores of Australia for trepang. In many parts, pepper, coffee, or betelnut, to a large, and tobacco, ginger, and other articles, to a considerable extent, are cultivated. Where the *hirundo esculenta* is found, the rocks are clomb and the caves explored for its costly edible nest. In different parts of the Archipelago the soil is dug for tin, antimony, iron, gold or diamonds. The more civilized nations make cloths and weapons, not only for their own use but for exportation. The traders, including the Rajahs, purchase the commodities which we have mentioned, dispose of them to the European, Chinese, Arab, or Kling navigator, who visits their shores, or send them in their own vessels to the markets of Singapore, Batavia, Samarang, Manila, and Maccassar. In these are

gathered all the products of the Archipelago, whether such as the native inhabitants procure by their unassisted industry, or such as demand the skill and capital of the European or Chinese for their cultivation or manufacture; and amongst the latter, nutmegs, cloves, sugar, indigo, sago, gambier, tea, and the partially cultivated cinnamon and cotton. To these busy marts, the vessels of the first maritime people of the Archipelago, the Bugis, and those of many Malayan communities, bring the produce of their own countries, and that which they have collected from neighbouring lands, or from the wild tribes, to furnish cargoes for the ships of Europe, America, Arabia, India, Siam, China, and Australia. To the bazar of the Eastern Seas, commerce brings representatives of every industrious nation of the Archipelago, and of every maritime people in the civilized world.

Although, therefore, cultivation has made comparatively little impression on the vast natural vegetation, and the inhabitants are devoid of that unremitting laboriousness which distinguishes the Chinese and European, the Archipelago, in its industrial aspect, presents an animated and varied scene. The industry of man, when civilization or over population has not destroyed the natural balance of life, must ever be the complement of the bounty of nature. The inhabitant of the Archipelago is as energetic and laborious as nature requires him to be; and he does not convert the world into a workshop, as the Chinese, and the Kling immigrants do, because his world is not, like theirs, darkened with the pressure of crowded population and over competition, nor is his desire to accumulate wealth excited and goaded by the contrast of splendour and luxury on the one hand, and penury on the other, by the pride and assumptions of wealth and station, and the humiliations of poverty and dependence.

While in the volcanic soils of Java, Menangkabau and Celebes, and many other parts of the Archipelago, population has increased, an industry suited to the locality and habits of each people prevails, and distinct civilizations, on the peculiar features of which we cannot touch, have been nurtured and developed; other islands, less favoured by nature, or under the influence of particular historical circumstances, have become the seats of great piratical communities, which periodically send forth large fleets to sweep the seas, and

lurk along the shores, of the Archipelago, despoiling the seafaring trader of the fruits of his industry and his personal liberty, and carrying off, from their very homes, the wives and children of the villagers. From the creeks and rivers of Borneo and Johore, from the numerous islands between Singapore and Banka, and from other parts of the Archipelago, piratical expeditions less formidable than those of the Lanuns of Sulu are year after year fitted out. No coast is so thickly peopled, and no harbour so well protected, as to be secure from all molestation, for, where open force would be useless, recourse is had to stealth and stratagem. Men have been kidnapped in broad day in the harbours of Pinang and Singapore. Several inhabitants of Province Wellesley who had been carried away from their houses through the harbour of Pinang and down the Straits of Malacca to the southward were recently discovered by the Dutch authorities living in a state of slavery and restored to their homes. But the ordinary abodes of the pirates themselves are not always at a distance from the European settlements. As the thug of Bengal is only known in his own village as a peaceful peasant, so the pirate, when not absent on an expedition, appears in the river, and along the shores and islands, of Singapore, as an honest boatman or fisherman.

When we turn from this brief review of the industry of the Archipelago, and its great internal enemy, to the personal and social condition of the inhabitants, we are struck by the mixture of simplicity and art, of rudeness and refinement, which characterises all the principal nations. No European has ever entered into free and kindly intercourse with them, without being much more impressed by their virtues than their faults. They contrast most favourably with the Chinese and the Klings in their moral characters; and although they do not, like those pliant races, readily adapt themselves to the requirements of foreigners, in their proper sphere they are intelligent, shrewd, active, and, when need is, laborious. Comparing them even with general condition of many civilized nations of far higher pretensions, our estimate must be favourable. Their manners are distinguished by a mixture of courtesy and freedom which is very attractive. Even the poorest while frank are well bred, and, excluding the communities that are corrupted by piracy or a mixture with European seamen and low Chinese and Klings, we

never see an impudent air, an insolent look, or any exhibition of immodesty, or hear coarse, abusive or indecent language. In their mutual intercourse they are respectful, and, while good humour-ed and open, habitually reflective and considerate. They are much given to amusements of various kinds, fond of music, poetry and romances, and in their common conversation addicted to sententious remarks, proverbs, and metrical sentiments or allusions. To the first impression of the European, the inhabitants, like the vegetation and animals of the Archipelago, are altogether strange, because the characteristics in which they differ from those to which we are habituated, affect the senses more vividly than those in which they agree. For a time the colour, features, dress, manners and habits which we see and the languages which we hear, are those of a new world. But with the fresh charms, the exaggerated impressions also, of novelty, wear away; and then, retracing our steps, we wonder that people so widely separated from the nations of the west, both geographically and historically, and really differing so much in their outward aspect, should, in their more latent traits, so much resemble them. The nearer we come to the inner spirit of humanity, the more points of agreement appear, and this not merely in the possession of the universal attributes of human nature, but in specific habits, usages, and superstitions.

What at first seems stranger still is, that when we seek the native of the Archipelago in the mountains of the interior, where he has lived for probably more than two thousand years secluded from all foreign influence, and where we expect to find all the differences at their maximum, we are sometimes astonished to find him approximating most closely of all to the European. In the Jakún, for instance, girded though his loins are with *terap* bark, and armed as he is with his sumpitan and poisoned arrows, we recognize the plain and clownish manners, and simple ideas of the uneducated peasant in the more secluded parts of European countries; and when he describes how, at his merry makings, his neighbours assemble, the arrack *tampúí* flows around, and the dance, in which both sexes mingle, is prolonged, till each seats himself on the ground with his partner on his knee and his *bambu* of arrack by his side, when the dance gives place to song, we are

forcibly reminded of the free and jovial, if rude, manners of the lower rural classes of the West. Freed from the repellant prejudices and artificial trappings of Hindu and Mahomedan civilization we see in the man of the Archipelago more that is akin than the reverse to the unpolished man of Europe.

When we turn to the present political condition of the Archipelago, we are struck by the contrast which it presents to that which characterised it, three or four centuries ago. The mass of the people, it is true, in all their private relations, remain in nearly the same state in which they were found by the earliest European voyagers, and in which they had existed for many centuries previously. But, as nations, they have withered in the presence of the uncongenial, greedy and relentless spirit of European policy. They have been subdued by the hard and determined will of Europeans, who, in general, have pursued the purposes for which they have come into the Archipelago without giving any sympathy to the inhabitants. The nomadic spirit, never extinguished during all the changes which they underwent, had made them adventurous and warlike when they rose into nations. But now, long overawed and restrained by the power of Europeans, the national habits of action have, in most parts of the Archipelago, been lost, or are only faintly maintained in the piratical expeditions of some. Their pride has fallen. Their living literature is gone with the power, the wars, and the glory, which inspired it. The day has departed when Singapore could be invaded by Javanese,—when Johore could extend its dominion to Borneo on the one side, and Samatra on the other,—when the fleets of Acheen and Malacca could encounter each other in the Straits to dispute the dominion of the Eastern Seas,—when the warrants of the Sultan of Menangkabau were as potent over the Malayan nations as the bulls of Rome ever were over those of Christendom,—when a champion of Malacca could make his name be known all over the Archipelago,—and when the kings of the Peninsula sent their sons, escorted by celebrated warriors, to demand the daughters of the emperors of Majapahit in marriage. The Malayan princes of the present day, retaining all the feudal attachment and homage of their subjects, and finding no more honorable vent for the assertion of their freedom from restraint and the gratification of their self-will, have almost every where sunk into indolent debauchees and

greedy monopolists, and, incited by their own rapacity and that of the courtiers who surround them, drain and paralyse the industry of their people.

The foreign elements at present exercising, or likely to exercise, great influence on the condition of the Archipelago, are the dominion of the Dutch and Spanish, the commerce and settlements of the English, the educational and missionary efforts of Christendom, the growth of large Chinese communities, and the continued influx of immigrants from China. It is probable, if England does not extend her influence, that the whole Archipelago, with the exception of the Malayan Peninsula (which is always considered a member of it,) the Philippines, and a small portion of Borneo, will, in no long time, become a portion of the Dutch empire; and if the humanizing and liberal influences which, we hope, are now modifying the character of the eastern policy of that nation, receive full effect, and Netherlands India come to be really looked upon as an integral part of Holland, its inhabitants being admitted to a full reciprocity of advantages with those of the European portion of the empire, there will be little to regret, and much to welcome, in the change. England in introducing freedom of trade, and in leaving the inhabitants of her possessions, small as they are, to the unshackled exercise of their own industry, has set an example of rational government, which, if imitated in every European possession in the Archipelago, would do something to atone for past misgovernment and neglect. It is impossible to foresee how great the influence of the Chinese may become. Large as the Chinese population already is, and numerous as the annual immigrants from China are, they must, in the progress of the change which is working in China itself, greatly increase, and there can be little hazard in looking to the pressure of population in China, as one of the most momentous elements in the future history of the Archipelago.

Broken down as the more civilized and once powerful states are, till their governments, with hardly an exception, have lost all the energy and ambition to be useful, and retain only the power to be hurtful; divided as the greater proportion of the population of the Archipelago is, into separate tribes and communities too small to resist the domineering and exacting spirit of the more covetous,

bold and active Malays and Bugis who infest their coasts; openly robbed and enslaved by their brother islanders; defrauded by the Chinese, Kling or Arab adventurer, whose superior activity and cunning, enable him to profit more by their industry than they do themselves; neglected by the European who seeks the same end by honest means, and, that attained, returns to his native country and gives them no second thought; and without any active internal elements of advancement;—it is only by awakening an interest in Europe itself that the inhabitants of the Archipelago can hope for any amelioration. So long as they only know one phase of European character,—the ardent, steady and inventive pursuit of gain,—the influence of Europe will remain, what it has hitherto proved, more prejudicial than beneficial. But let the deep human sympathy which dwells in England and overflows on so many sides, once effectually reach the people of this noble region of the world; let England learn their many virtues, their mild and engaging manners, their freedom from intolerance, their docility, their aptitude for instruction; and let her but take seriously to heart the fact that on the seas where her flag has floated and her commerce largely profited for two hundred and fifty years, the peaceful trader cannot at this day venture to embark without the risk of being slain or enslaved,—that from the destruction of all national power, in which her own policy aided, a few thousand pirates now keep the coasts of countries numbering millions of inhabitants in a state of insecurity,—and her energy and resources will soon work out the best means of suppressing these evils at once and for ever, and of implanting fresh and vigorous elements of moral development in the now stagnant minds of the inhabitants. Without this we may continue for another hundred years to mingle in the trading communities of the Archipelago, without ever exercising any of that influence which our predecessors, the Hindus and the Mahomedans, exercised. But if we would seek to assimilate the natives of the Archipelago to those of Europe, and take them with us on our path of advancement, we must, like the Hindus and Mahomedans, begin by acquiring a thorough and familiar knowledge of them.

Their political and material wants are so connected that whatever tends to remedy the latter must react on the former. It is no less the duty of the christian and the philanthropist for their

ends, than of the economist for his, to take every practicable measure for the improvement of the external condition of the natives of the Archipelago. We need not now suffer our minds to be disturbed by any misgivings as to the benefit derivable from European influence. In the first place, the influence hitherto has not been that of Europe in her noblest characteristics; or the lower and more selfish have so much predominated that they have not yet dreamt of Europe in her earnest devotion to the bettering of humanity, her pure and deep love of all truth spiritual and physical, and her ever extending knowledge of the secret springs of nature. For, although we fully appreciate the earnest and noble labours of the missionaries who are found in many of the islands, we cannot be blind to the fact, that their numbers and resources are, as yet, far too limited to make more than a slight impression on the great field which lies around them. In the second place we have no choice. We may deplore that some tribes, happy in their simplicity and guilelessness, should be roused from their repose of peace to pass through the turbulent period which separates man first awaking to a sense of new wants and setting out on his career of dissatisfaction and action, from man when civilization has thrown off its early vices and evils, and is bringing all human wants and desires into harmony. But we cannot, if we would, arrest the march of events; and as the necessities and enterprize of China and Europe are yearly more and more invading the recesses of the Archipelago, and the most secluded tribes must in a short time be brought within the circle of general economical intercourse, we must dismiss from our minds distrust and hesitation, and substitute in their place, the fact that this intercourse is now most extensive, will soon be universal, and is a mighty agent for good as well as for evil.

Unfortunately the Chinese, who are so rapidly spreading, can only corrupt and debase the natives. Living but for gain and merely physical enjoyment, and pursuing these objects with a combination of the most mature patience, laboriousness, duplicity, craft and often fraud, which is the more dangerous from the easy, open, plain and plausible manner with which it is accompanied, the Chinese flow into every opening which European powers effect whether by supplanting or weakening native governments. If every

step which European enterprize makes is thus followed by an accession of Chinese corruption, it is the more incumbent on Europe that she no longer stand aloof from the natives, and abandon them to the debasement of a civilization, purely industrial and sensual, to which she contributes to expose them.

It is time that England should see and be shocked by the effects of her past policy or absence of policy in the anarchy, degeneracy, oppressions and vices which largely prevail in many parts of the Archipelago. England would then learn by what a small effort, in comparison with those which she is daily making for objects of far inferior magnitude and moment, she might make herself known in her true character in the Archipelago, and speedily free the slave from his bonds; suppress the trade in men and its associate piracy; mitigate and eventually abolish the heavy monopolies and restraints which depress industry, and nourish oppression, fraud and corruption; and, having thus given to the people freedom in person, property and mind, lead them, through her sympathy and pity and their docility and gratitude, to a willing reception of the humanizing and elevating knowledge of christendom.

GUTTA PERCHA.

By THOMAS OXLEY, Esq., A. B.

*Senior Surgeon of the Settlement of Prince of Wales' Island, Singapore,
and Malacca.*

Although the Trees yielding this substance abound in our indigenous forests, it is only four years since it was discovered by Europeans. The first notice taken of it appears to have been by Dr. W. MONTGOMERIE in a letter to the Bengal Medical Board in the beginning of 1843, wherein he commends the substance as likely to prove useful for some surgical purposes, and supposes it to belong to the Fig tribe. In April 1843 the substance was taken to Europe by Dr. D'ALMEIDA who presented it to the Royal Society of Arts of London, but it did not at first attract much attention, as the Society simply acknowledged the receipt of the gift; whereas shortly after they thought proper to award a gold medal to Dr. W. MONTGOMERIE for a similar service. Now, as the discovery of both these Gentlemen rested pretty much upon the same foundation:—the accidental falling in with it in the hands of some Malays who had found out its greatest peculiarity,—and, availing themselves thereof, manufactured it into whips which were brought into Town for sale: there does not appear any plausible reason for the passing over the first and rewarding the second. Both gentlemen are highly to be commended for endeavouring to introduce to public notice, a substance which has proved so useful and interesting. The Gutta Percha having of late attracted much attention, and as yet but little being known or published about it, I would now propose to supply, to the best of my ability, this desideratum, and give a description of the Tree, its product and uses, so far as it has been made available for domestic and other purposes, in the place of its origin.

The Gutta Percha Tree, or Gutta Túban as it ought more properly to be called,—the Percha producing a spurious article,—belongs to the Natural family Sapotææ, but differs so much from all described Genera, having alliance with both Achras and Bassia, but differing in some essentials from both, that I am disposed to think it is entitled to rank as a new genus. I shall therefore endeavour to

give its general character, leaving the honor of naming it to some more competent Botanist, especially as I have not quite satisfied myself regarding the stamens from want of specimens for observations.

The Tree is of large size, from 60 to 70 feet in height, and from 2 to 3 feet in diameter. Its general appearance resembles the Genus *Durio*, or well known Doorian, so much so as to strike the most superficial observer. The under surface of the leaf, however, is of a more reddish and decided brown than in the *Durio*, and the shape is somewhat different.

The flowers are axillary, from 1 to 3 in the axils, supported on short curved pedicles, and numerous along the extremities of the branches.

Calyx, inferior, persistent, coriaceous, of a brown color, divided into six sepals which are arranged in double series.

Corolla, monopetalous hypogenous, divided like the calyx into six acuminate segments.

Stamens, inserted into throat of the corolla, in a single series, variable in number, but, to the best of my observation, the normal number is twelve, most generally all fertile, anthers supported on slender bent filaments, opening by two lateral pores.

Ovary, superior, terminated by a long simple style, six celled, each cell containing one seed.

Leaves about four inches in length, perfect, entire, of a coriaceous consistence, alternate, obovate lanceolate, upper surface of a pale green, under surface covered with close, short, reddish brown hairs. Midrib projects a little, forming a small process or beak.

Every exertion of myself and several others having failed in procuring a specimen of the fruit of the Gutta, I regret being compelled to omit the description of it in the present instance, but hope to rectify this omission in some future number of the Journal. It is quite extraordinary how difficult it is to obtain specimens of either the flower or fruit of this tree, and this is probably the reason of its not having been earlier recognized and described by some of the many Botanists who have visited these parts.

Only a short time ago the Túban Tree was tolerably abundant on the Island of Singapore. but already all the large timber has been

felled, and few, if any, other than small plants are now to be found. The range of its growth, however, appears to be considerable; it being found all up the Malayan Peninsula as far as Penang where I have ascertained it to be abundant; although as yet the inhabitants do not seem to be aware of the fact: several of the Mercantile houses there, having sent down orders to Singapore for supplies of the article, when they have the means of supply close at hand. The Tree is also found in Borneo, and I have little doubt is to be found in most of the Islands adjacent.

The localities it particularly likes are the alluvial tracts along the foot of hills, where it flourishes luxuriantly, forming, in many spots, the principal portion of the jungle. But notwithstanding the indigenous character of the tree, its apparent abundance, and wide spread diffusion, the Gutta will soon become a very scarce article, if some more provident means be not adopted in its collection than that at present in use by the Malays and Chinese.

The mode in which the natives obtain the Gutta is by cutting down the trees of full growth and ringing the bark at distances of about 12 to 18 inches apart, and placing a cocoanut shell, spathe of a Palm, or such like receptacle, under the fallen trunk to receive the milky sap that immediately exudes upon every fresh incision. This sap is collected in bamboos, taken to their houses, and boiled in order to drive off the watery particles and inspissate it to the consistence it finally assumes. Although the process of boiling appears necessary when the Gutta is collected in large quantity; if a tree be freshly wounded, a small quantity allowed to exude, and it be collected and moulded in the hand, it will consolidate perfectly in a few minutes and have all the appearance of the prepared article.

When it is quite pure the color is of a greyish white, but as brought to market it is more ordinarily found of a reddish hue, arising from chips of bark that fall into the sap in the act of making the incisions, and which yield their color to it. Besides these accidental chips there is a great deal of intentional adulteration by sawdust and other materials. Some specimens I have lately seen brought to market, could not have contained much less than $\frac{1}{4}$ th of impurities; and even in the purest specimens I could obtain for surgical purposes, one pound of the substance yielded, on being

cleaned, one ounce of impurities. Fortunately it is neither difficult to detect or clean the Gutta of foreign matter; it being only necessary to boil it in water, until well softened, roll out the substance into thin sheets, and then pick out all impurities, which is easily done as the Gutta does not adhere to any thing, and all foreign matter is merely entangled in its fibres, not incorporated in its substance. The quantity of solid Gutta obtained from each tree varies from five to twenty catties, so that, taking the average at 10 catties which is a tolerably liberal one, it will require the destruction of 10 trees to produce one picul. Now the quantity exported from Singapore to Great Britain and the Continent from 1st January 1845 to the present date, amounts to 6,918 piculs, to obtain which sixty nine thousand one hundred and eighty trees must have been sacrificed. How much better would it therefore be to adopt the method of tapping the tree practised by the Burmese in obtaining the Caoutchouc from the *Ficus Elastica*, (viz., to make oblique incisions in the bark, placing bamboos to receive the sap which runs out freely,) than to kill the goose in the manner they are at present doing. True they would not at first get so much from a single tree, but the ultimate gain would be incalculable, particularly as the Tree appears to be one of slow growth, by no means so rapid as the *Ficus Elastica*. I should not be surprised, if the demand increases, and the present method of extermination be persisted in, to find a sudden cessation of the supply.

PROPERTIES OF THE GUTTA.

This substance when fresh and pure is, as already mentioned of a dirty white color and of a greasy feel with a peculiar leathery smell. It is not affected by boiling Alcohol, but dissolves readily in boiling spirits of Turpentine, also in Naptha and Coal Tar. A good cement for luting bottles and other purposes is formed by boiling together equal parts of Gutta, Coal Tar and Resin. I am indebted for this hint to Mr. LITTLE, Surgeon, and the above were his proportions. I have, however, found it necessary to put two parts of the Gutta, that is one half instead of one third to enable the cement to stand the heat of this climate. When required for use it can always be made plastic by putting the pot containing it over the fire for a few minutes. The Gutta itself is highly inflammable,

a strip cut off takes light, and burns with a bright flame, emitting sparks, and dropping a black residuum in the manner of sealing wax, which in its combustion it very much resembles. But the great peculiarity of this substance, and that which makes it so eminently useful for many purposes, is the effect of boiling water upon it. When immersed for a few minutes in water above 150 degrees of Faht. it becomes soft and plastic, so as to be capable of being moulded to any required shape or form, which it retains upon cooling. If a strip of it be cut off and plunged into boiling water, it contracts in size both in length and breadth. This is a very anomalous and remarkable phenomenon, apparently opposed to all the laws of heat.

It is this plasticity when plunged into boiling water that has allowed of its being applied to so many useful purposes, and which first induced some Malays to fabricate it into whips, which were brought into Town and led to its farther notice. The natives have subsequently extended their manufactures to buckets, basins and jugs, shoes, traces, vessels for cooling wine, and several other domestic uses; but the number of Patents lately taken out for the manufacture of the article in England proves how much attention it has already attracted, and how extensively useful it is likely to become. Of all the purposes, however, to which it may be adapted none is so valuable as its applicability to the practice of Surgery. Here it becomes one of the most useful auxiliaries to that branch of the healing art, which of all is the least conjectural. Its easy plasticity and power of retaining any shape given to it when cool, at once pointed it out as suitable for the manufacture of Bougies, and accordingly my Predecessor, Dr. W. MONTGOMERIE, availed himself of this, made several of the above instruments, and recommended the use of it to the Bengal Medical Board. But, like many other good hints, for want of sufficient enquiry, I fear it was disregarded. The practice, however, has been continued by me, and I find many advantages in the use of this substance. It also answers very well for the tubes of syringes which are always getting out of order in this country when made of Caoutchouc. But my late experiments have given it a much higher value, and proved it the best and easiest application ever yet discovered in the management of fractures, combining ease and comfort to the Patient, and very much lessening the

trouble of the Surgeon. When I think of the farago of bandages and splints got rid of, the lightness and simplicity of the application, the Gutta would be no trifling boon to mankind were it to be used solely for this and no other purpose. The injuries coming under my observation wherein I have tested its utility have, as yet, only been two compound fractures of the leg, and one of the jaw. But so admirably has it not only answered, but exceeded, my expectations, that I should think myself culpable in not giving the facts early publicity. Its utility in fracture of the lower jaw must at once strike any Surgeon. So well does it mould itself to every sinuosity, that it is more like giving the Patient a new bone than a mere support. A man lately brought into Hospital, who had his lower jaw broken by the kick of a horse, and which was so severe as to cause hemorrhage from the ears, smashing the bone into several fragments, was able to eat and speak in three days after the accident, and felt so well with his Gutta splint that he insisted upon leaving the Hospital within ten days. My mode of applying this substance to fractures of the leg is as follows.

The Gutta having been previously rolled out into sheets of convenient size, and about one fourth of an inch in thickness, is thus kept ready for use. When required, a piece of the necessary length and breadth is plunged into a tub of boiling water. The limb of the patient is then gently raised by assistants, making extension in the usual manner. The Surgeon, having ascertained that the broken bone is in its place, takes the sheet of Gutta out of the hot water, and allows it to cool for a couple of minutes. It is still soft and pliable as wash leather. Place it whilst in this state under the limb, and gently lower the latter down on it. The Gutta is then to be brought round and moulded carefully to the whole of the back and sides of the leg, bringing the edges close together, but not uniting them. If there be any superfluous substance, it can be cut off with a scissor, leaving an open slit down the front of the leg. You have now the leg in a comfortable, soft, and smooth case, which, in ten minutes, will be stiff enough to retain any shape the Surgeon may have given it, and which will also retain the bone in situ. Place the leg so done up on a double inclined plane, and secure it thereto by passing three of

the common loop bandages around the whole,—that is one at the top, one in the middle, and one at the lower end. Let the foot be supported by a foot board, and a case of Gutta put over the dorsum of the foot, to bear off the pressure of the small bandage generally used to secure it to the board. Having done this, the Surgeon need not cause his Patient another twinge of pain until he thinks he can use the leg, or he deems the bone sufficiently united to bear the weight of his patient. If it be a compound fracture it will only be necessary to untie the loop bandages, separate the edges of the Gutta splint to the required distance, wash and cleanse the limb without shifting any thing except the dressings, and having done so, shut it up again. The most perfect cleanliness can be maintained, as the Gutta is not affected by any amount of ablution; neither is it soiled or rendered offensive by any discharge, all which washes off as easily from the Gutta case as from oil cloth. I have had a patient where the Tibia protruded through the integuments fully two inches, walking about in six weeks from the injury, with a leg as straight and well formed as ever it had been. It is quite obvious therefore that if it answers so well for compound, it will answer equally, if not better, for simple, fractures; and that any broken bone capable of receiving mechanical support can be supported by the Gutta better than by any other contrivance. For it combines lightness and smoothness, durability and a capability of adjustment, not possessed by any other known substance. All new experiments have to run the gauntlet of opposition, and I do not suppose that these recommendations will prove an exception to the rule. But all I ask of any Surgeon is to try the experiment ere he argues on its propriety, and I feel fully convinced that all other splints and bandages will be consigned to the tomb of the Capulets. There are some other uses for which I have tried this substance, viz., as capsules for the transmission of the vaccine virus, which ought to keep well when thus protected, for it is most perfectly and hermetically sealed. But I have not had sufficient experience in this mode of using it to pronounce decidedly on its merits. I am at present trying the effects of it on Ulcers, by enclosing the ulcerated limb in a case of Gutta so as to exclude all atmospheric air, and, so far, the experiment promises success.

Since writing the foregoing observations I have had an official intimation from Penang of the vaccine virus transmitted in the Gutta capsules having been received in good order, and of its having succeeded most satisfactorily. I have also opened a capsule containing a vaccine crust that had been kept here for one month, and it also seems to have lost none of its efficacy as the case inoculated has taken. This will appear the more striking when it is recollected that to preserve the vaccine virus hitherto in Singapore even for a few days has been almost impossible,—that this Settlement, notwithstanding every exertion on the part of both private and public practitioners, has been without the benefit of this important prophylactic for an interval sometimes of two years,—and that, at all times, the obtaining and transmitting this desirable remedy has been a cause of trouble and difficulty to all the medical officers I have ever met with in the Straits.

I observe in the *Mechanics Magazine* for March 1847, a notice of several Patents taken out for the working of this article by Mr. Charles Hancock, in which an elaborate process is described for cleaning the Gutta, as also mention of its having a disagreeable acid smell. The Gutta when pure is certainly slightly acid, that is, it will cause a very slight effervescence when put into a solution of soda, but is unaffected by liquor potassa. The smell although peculiar is neither strong nor unpleasant, so that the article experimented upon must have been exceedingly impure, and, possibly, derived a large proportion of its acidity from the admixture and fermentation of other vegetable substances. Again, it appears to me that, if the Gutta be pure, the very elaborate process described as being necessary for cleaning it, is superfluous. The Gutta can be obtained here in a perfectly pure state by simply boiling it in hot water until well softened, and then rolling it out into thin sheets, when, as I have before said, all foreign matter can be easily removed. I would recommend that the manufacturers at home should offer a higher price for the article if previously strained through cloth at the time of being collected, when they will receive the Gutta in a state that will save them a vast deal more in trouble and expense than the trifling addition necessary to the original prime cost.

SOME REMARKS ON THE DYAKS OF BANJARMASSING.*

THE Dyaks are, in many respects, a very interesting people: Very different in character from the cringing, fawning Malays, who here, and more particularly on the west coast of the island, come in contact with them, they meet us with a free and open countenance, and express their opinions and wishes, although not always off hand, yet without subterfuge or cloak. They have much natural sense and a sound judgement, so that, in the most difficult and complicated affairs, they often know how to assist with surprising ability and sagacity. The persons of the Dyaks are more graceful than those of the Malays, and their colour is much fairer than that of the Javanese. Tatooing is very general amongst them,† and the flowers, circles and other dark figures which they paint with great care, give a good effect to their slender and mostly muscular persons, which are wholly divested of all clothing. The only thing which a yet unpolished Dyak wears is a headkerchief and a small piece of cloth,—or from want of it, a small strip of soft beaten bark,—around his loins, with which he conceals his shame. Both ends hang down in the manner of lappets, one in front and one behind; a circumstance which has probably given rise to the singular assertion “that some of them are furnished with tails.” Far in the interior the women also are but scantily clothed: a very narrow garment, which scarcely reaches from the waist to the knees, is usually their only dress.

In the middle of the island the people live, as it were, wholly in a state of nature; and neither men nor women appear to have any conception of shame. I myself have seen, in the Kapus river, that the women with their children bathe naked in the presence of many men, and without any one perceiving the least impropriety or evil in it.‡ In proportion to the Dyak's indifference respecting his dress, is his passion for various ornaments, particularly Agate

* Translated for this Journal from the *Tijdschrift voor Neerlands Indie. Negende Yaargang, tweede aflevering.*

† The Dyaks in the North West of Borneo do not tatoo although the Kayans do.—ED.

‡ Mr. Brooke says, “Even the Malays speak highly of the chastity of the Dyak women; yet they are by no means shy under the gaze of strangers, and used to bathe before us in a state of nudity.”—*Keppel's Expedition to Borneo, vol. 1. p. 59.*—ED.

stones, of which he wears large and long pieces on his neck,—and Gold, with which he ornaments his teeth and wooden ear pins,—sometimes as large as a piaster,—and of which large plates are likewise worn by the wealthy on the breast. They are also fond of copper rings, which are worn in great abundance on the arms, principally by the women.

In these things their whole riches generally consist, save that persons of consideration sometimes also possess one or more of those large far famed pots, of which the finest, called *blunga*, has not unfrequently a value of 2000 Guilders. But, poor or rich, the Dyak is generally good humoured; and if he can possibly manage it, and though he, with his wife and children, should remain in debt, he must some times in the year kill a hog, which he, along with a numerous gathering of his friends, joyously devours, qualified with a large quantity of *túak* or arrack.

Although there are no drunkards properly so called amongst the Dyaks, a single person seldom remains sober at such feasts. The *túak* is passed round in large cups, and that till the larger pots are emptied, or their heads are so full and giddy that they hardly know each other, when they become very noisy, declare themselves all rich (*tulau*) frolicsomenly embrace each other, and then, talking or singing, tumble to their huts. The principal feasts are those named *tiwa* (death-feasts) which last at least seven days. On such occasions ten buffaloes, and about the same numbers of pigs, are often killed. Nearly a thousand men are gathered, and by the time the seven days are ended, all the buffaloes, pigs, and 20 or 25 piculs of rice, part of which is made into *tiak*, are wholly consumed.

A chief part is played at such feasts by the *blians* (dancing girls): who, day and night, sing improvising, with all their might: and the *olo maga lian* (the conductor of the soul) who brings the dead, likewise singing, and, as he declares, in an iron ship, past hell to a good place, for which service he receives, besides his share of the feast, from 20 to 30 bottles. The cost of such a *tiwa* sometimes runs as high as 400 to 500 bottles, and brings the givers into such debt that they have speedily to become pawns.

Their great superstition also costs them many sacrifices. If the

Dyak goes on a journey he first interrogates the *Antang Ulang*, a large bird of prey: that is to say, he goes to some secluded spot on a river's bank, where he cuts away some wood, brings an offering of rice and pork or fowl, and then calls his *Nabi* until he takes his significant flight over him. If the flight of the bird is in the direction of the contemplated journey, there is no need to have any further concern, and he begins his journey in earnest. But if the bird flies in a contrary direction, he abandons his undertaking, at least for that day: however much may occasionally depend on the speed of his journey: and continues to go with his meals to the *antang*; and every time with a more pressing invitation, till it, finally, satisfies the desire of his heart, and starts towards the intended point.*

The Dyak also makes offerings on the occurrence of sickness, when the *blians* must again be present, who, besides the observance of the ceremonies, seek to sustain the patient by singing and beating the tambourine. This, however, is often attended with an opposite effect, for the patient by the continued noise, day and night, is all the speedier sent to his grave.

It often happens too that a dream gives occasion to sacrifices. When, for example, I once went into the house of my neighbour, the mistress of the house related to me, that in the preceding night a ghost appeared in a dream, which had enjoined her to slaughter and offer her largest hog; and although I took the greatest pains to enlighten her on this subject, and however much the woman was wedded to money and goods, the behest of the ghost had to be complied with. In the same evening a heavy shot was discharged before the house, a signal to all friends and neighbours that they had to expect something on the following morning; and scarcely was the red of dawn visible when they dragged the animal to the

* The Sibnawan Dyaks appear to be devoid of this superstition. (See Expedition to Borneo, vol. 1. p. 60) Dr. Leyden, who writes on the authority of Radermacher, Dalrymple, Forrest and Burn, says, "They hold particular kinds of birds in high veneration, and draw omens from the sounds which they utter, and from their flights. One of the principal of these is a large species of white headed kite, which preys on fish, snakes, and vermin. In all their wars, journeys, and, in short, all matters of importance, they pay the utmost attention to the omens of birds, and sometimes too they endeavour to penetrate the secrets of futurity by consulting the entrails of birds."—ED.

river side, and the whole campong re-echoed with its screech, the sweetest music to the ear of the Dyak.

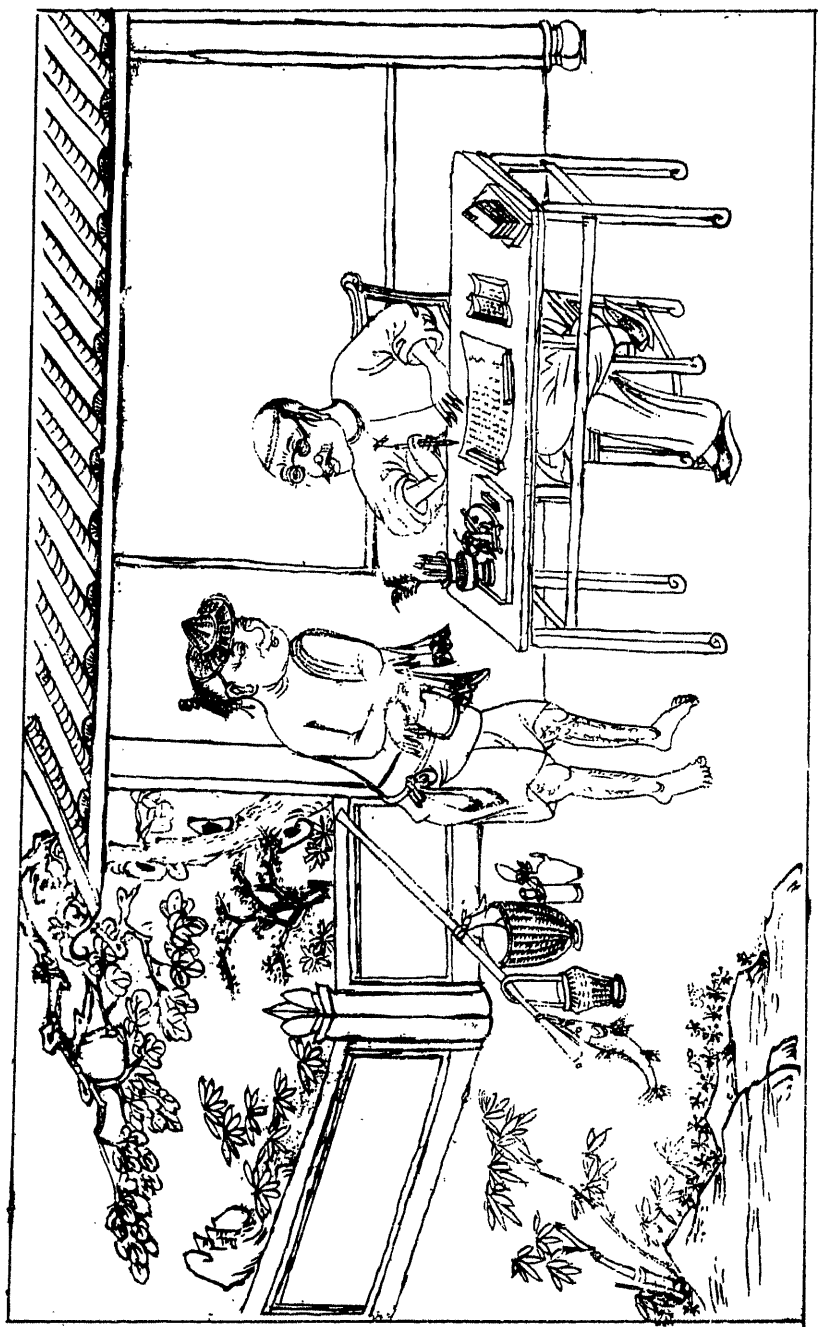
There exist many other reasons for sacrificing besides these. The barrenness of women, a bad fall, getting wounded by the felling of trees, seeing ghosts, &c. cost many pigs their lives. All these offerings are made to *Djata* (water-god) or *Sangiang* (a higher good being) or to the *Tellopapa* (bad spirits.) The greatest number are generally offered to these last, for, said one of the Dyak priests to me lately, we have nothing to fear from the good beings and *Hatalla* (God), and we do not need to make any offerings to them, but we must feed the bad spirits to keep them away from us.

In the interior, men are still occasionally sacrificed, principally on the death of chiefs and other considerable persons. In Sirat, the furthest inhabited point of the Kapús river, where I, some years ago, made a journey of investigation, they had, a short time before our arrival, sacrificed two womén. An acquaintance, who had been present, gave me the following account of the horrible event. One morning at Sirat there gathered a great number of people who streamed in from all sides to celebrate a great feast. There was firing of guns; the open plain before the kotta (fort) was prepared for the occasion, and adorned with branches, flowers and cloths; a number of hogs were killed; and when, finally, by mid-day, everything had been arranged according to use and wont, the real objects of the festival were brought forward,—two women, still young, who had been purchased for the purpose from another race in the *Dúson*. They had to seat themselves on the side of the ready-dug graves, and contemplate for some time the noisy rejoicings of the feasters. A lance of about thirty feet in length was then brought and laid on one of the victims. All now hurried to take a part in the impending detestable deed. A hundred hands seized the long lance, and, the instant the customary sign was given, they threw themselves, amidst the loud acclamations of the multitude, on the unfortunate wretch, and pierced her through, even transfixing her to the ground. They then cut off the head of the fallen victim, and carried it during the rest of the day, dancing and singing round it. The same fate also befell her unfortunate companion. Those who are thus offered

become in their belief, the slaves, in the other world, of the deceased friend to whose memory they are offered.

Respecting the mode of life of the Dyaks I shall here merely say that they maintain themselves by rice cultivation, trade, and, in the interior, principally by the collection of gold dust, in which the ground in many places is very rich.

The Dyaks do not possess towns, but mostly dwell in small kampongs of about 4 to 10 houses. It is only in the interior, from dread of the barbarous Dyak Pari, the rapid *aloat nyuwong* and the other enemies: of whom I shall hereafter give an account, and who on their forays usually destroy or carry away all: that they have them in greater number on certain points, which they surround with large fences and bring into a certain degree of defence, and therefore name *kotta*. In such a kotta 1000 to 1500 men often dwell. The whole population of Pulo petak consists of about 10,000 souls and is distributed in nearly 40 kampongs, over an extent of ground of some hours' pulling in a fast boat.



ANNUAL REMITTANCES BY CHINESE IMMIGRANTS IN SINGAPORE TO THEIR FAMILIES IN CHINA.

THE attachment of the Chinese to their parents and families is one of the most interesting features of their character, and it is interesting to watch the modes in which it develops itself amongst those who have emigrated to the Archipelago, and remain for many years, and often for life, cut off from all direct intercourse with their homes.

During the past month, some of the Streets in the business quarter of Singapore were occasionally densely crowded by Chinese. These were principally coolies from the Gambier and Pepper plantations, who had come into town for the purpose of sending their annual letters and remittances to their families in China by the Junks which were leaving on their return voyage. These letters and monies are either entrusted to a comrade from the same part of China, who, fortunate enough to have accumulated a small competency, is about to revisit his native land; or they are delivered to a passenger with whom the remitter may be acquainted; or, lastly, they are confided to one of those men, to be found in almost every Junk, who make it a regular business to take charge of such remittances. Such persons are designated *Seu Pé Ké*, and come from all the different places of any importance from which emigrants are in the habit of repairing to the Straits. The remitter entrusts his money to the agent from his own part of the country, who for his trouble, either receives a commission of 10 per cent., if the money is to be carried in specie, or is allowed to invest it in goods, the profit or loss on which is his, as he must pay over in China the exact sum that has been delivered to him. These persons frequently for years exclusively pursue this business: not the least remarkable of the thousand-and-one modes by which the ingenuity of the Chinese in making money develops itself: until they have realized sufficient to enable them to embark in more extensive pursuits.

Remittances are made by all classes of the immigrants. While the merchant sends his hundreds of dollars, the poor coolie sends his units or tens. The amount remitted each year varies considerably,

being dependent on many circumstances, such as the general state of trade, or the particular fortune of individuals. In some years the aggregate amount reaches as high as perhaps 70,000 Spanish dollars, while in other years it may fall as low as 30 or 40,000 dollars. In the season which has just ended, the remittances were very small in amount, owing, in the case of the merchants and traders, to the unprofitable state of trade for some time past, and, in the case of the agricultural coolies, to the inadequate price which gambier has for many months commanded, and which has seriously affected their wages, the amount of which is dependent on the price of the product.

Many of these coolies, being unable to write, are obliged to have recourse either to an acquaintance: if they are so fortunate as to possess one having a tincture of letters: or to one of the public letter-writers whose stalls, like those of similar professors in many cities of Continental Europe, are to be found in the streets, with their owners ready to be the instruments of communication for those who cannot write themselves. The Chinese letter-writer's stall is a very simple affair; consisting in general of a small rude table, a little bundle of paper, a brush, some China ink, and a stool on which the operator sits.* These stalls are usually placed at the side of the street, and sometimes in the public verandahs; while, in the outskirts of the town, they may be found established under trees, or in the shadow of walls. The person who wishes to send the letter stands or squats himself upon his hams beside the writer, and states what he wants to have written, and the letter being finished is delivered to him, while he rewards the writer with 3 to 6 cents, according to circumstances. On the occasion of the departure of two or three large Junks,

* A Chinese has furnished us with a rude sketch of one of these stalls drawn and lithographed by himself, which, although without artistical pretensions, and abounding in the usual defects of the Chinese pencil, is sufficiently faithful and characteristic. As example will much better convey a correct idea of the state of art amongst the people around us, than mere description, we shall allow them, to a certain extent, to be their own illustrators. From the same desire to exhibit our Eastern fellow-townsmen as they really are, to our readers in England, we shall, occasionally, in giving specimens of their books introduce, fac similes of the figures with which they are embellished. Rude as the productions of native art generally are, and particularly reckless of perspective and proportion, we are often surprised by the fidelity and vigour with which the character of the subject has been caught, and by a broad drollery or even humour which we should still less have expected.

not only are the whole of the professed letter-writers in full operation, but many coolies take up the trade for the time being, and assist in supplying the large demand, so that sometimes in passing along the streets in the morning, we may count as many as from forty to fifty stalls. These occasional letter-writers do not expend much on their outfit. An old packing case, or a deal board frequently supplies a table sufficient for their purpose.



SHA'IR BYDASARI : *A Malayan Poem.*

With an English Translation and notes.

IN order to assist European scholars, we shall annex translations to some at least of our series of Malayan works. This indeed is indispensable from the imperfections of the best dictionaries : that of Marsden, for instance, omitting a considerable portion of the language, and, although abounding in idiomatic expressions for the most part faithfully rendered, yet being very far from containing a sufficient collection for those who cannot refer to Malayan *literati*. It is obvious that, under such circumstances, the most literal translation will be the most valuable. The authors of the fragments which have hitherto appeared, with few exceptions, present the ideas of their original in a flowing English garb, adding and expunging with much license, and seeking rather to gratify their own taste than satisfy the curiosity of their readers. Some of these translations, however, possess a high merit, and often when departing most from the words approach nearest to the spirit of the original. For a time at least, we shall not propose any higher aim than to facilitate the understanding of Malay in England ; and should we, in the progress of our labour, be induced to adopt a less literal in order to give a more true translation, we shall take care in our notes to explain those words and idioms which do not occur in the dictionaries. We shall reserve our remarks on Malayan literature for their proper place in the series of papers on that people, which we intend to commence in an early number of the Journal. But with respect to their poetry, it may be proper to remark here, that while the ideas in general are simple, and spring neither from passion nor imagination : although they are by no means always devoid of these attributes, and are often distinguished by much tenderness and truth : the Malay poet, consulting the taste of his nation, looks upon verbal melody as the great aim of his art. With a language essentially musical, and which, having grown under the influence of this taste, so abounds in melodious expressions and combinations of sounds, that a Malay must almost perforce speak in numbers, the poet finds no difficulty in giving beauty to the simplest idea. Add to this that all poems are sung or chanted, and that there are numerous words and expressions which, being used only for poetical purposes, always convey a poetical

meaning to the ear of the Malay, and the reader may be disposed to admit that the best service which any translator, who is not a poet, can render to him, is to help him to read Malayan poetry in the original. That no one may be deterred from doing so by requiring at the outset to master the Arabic alphabet, we give our first poem in Roman characters,* using, so far as it appears necessary, Sir WILLIAM JONES' system of orthography.† It may not be the best; but unless we consent to adopt a common system, we shall never understand each other, and errors of pronunciation will continue to be multiplied as they have hitherto been. The Asiatic Society has adhered to the system of its founder. The Royal Asiatic Society, with most orientalists, have followed it; and as no one had a better right than Sir WILLIAM JONES to legislate on the subject, we would earnestly recommend all contributors to this Journal to submit to his rules, even when not entirely approving of them.

* It is the less necessary to give it in Malayan characters as Dr. W. R. Baron Van Hoëvell has already done so. His edition is accompanied by an excellent translation in Dutch somewhat less literal than ours, and by a number of learned notes, of which we may occasionally avail ourselves with due acknowledgement.

† The following explanation may be useful.

á, as in far
 a, as u in tub
 é, as the *ey* in they or *a* in dare
 i, as *ee* in see
 i, as in pin
 ei, as the *t* in pine
 ó, as in no
 ú, as the *oo* in room
 u, as in bull
 eu, as the *u* in user or *eu* in eulogy

SHA'IR BĪDASARĪ.

- 1 Diŋgarkan kisat súátú rúáyit
Rájá dídesá nigrí Kambáyit
- 2 Díkárang fákír dijídíkan hikáyit
Díbúatkan shaír sertá berníit.
- 3 Adáláh rájá sabúáh nigrí
Súltán Agus bíjá' bastárí
Asulníah bágindá rájá íáng bhárí
Melimpáhkan pádá dágáng beáprí
- 5 Khabarníá orang ámpúníá termásá
Bágindá ítúláh rájá perkásá
Tíadáláh íáh mirásái súsáh
Antáhláh kápádá ésoh dan lúsáh.

BĪDASARĪ : *A Poem.**

- 1 Listen to a tale of the history
Of the King of a désa in the land of Kambayit.
- 2 A Fakir composed and produced the story ;
He made the poem as he had designed it.
- 3 There was a King of a certain country,
Sultan Agus, the wise and accomplished,
His descent was from good Kings:
He caused strangers and merchants to abound.
- 5 The men of his own time relate
That he was a King of might.
Never had he felt misfortune,—
But who knows of the morrow ?

* For convenient reference from the original, the translation, although not metrical, is placed in verses, line for line, with the former.

NOTES.

Line 3. *بجق* bijak. As our object is to write Malay in roman characters as it is pronounced, and not as it is spelt, we deem it proper to convert the *ك* k, into the short *á*, although contrary to the practice followed by Marsden and generally adopted. The vowel before the final *k* is sometimes pronounced as if followed by a slight aspirate, but more often as if the speaker abruptly stopped short when about to pronounce the *k*.
„ 6. *Literally*, tomorrow and the day after.

- 7 Srí padúká súltán bastári
 Sítláh iáh súdá berístí
 Bebrápá búlan bebrápá hárí
 Hámílláh Pútrí pírméisúrí.
- 9 Dimí detantáng dúlí mákotá
 Míngkinláh hátí bertambáh chintá
 Laksáná mendápát búkét parmátá
 Menantáng ístríníá hámíl sirtá.
- 11 Bebrápá lámáníá dídalám kárájáan
 Sinantiásá iáh bersúká súkúan
 Dátángláh másá beroleh kadukáan
 Bagíndá meniñgalkan takhta kárájáan.
- 13 Dátángláh kapadá suátú másá
 Meliángláh angas dérí angkúsá
 Angas Garúdá búrong perkásá
 Menjadí negrí rosá benásá.
-

- 7 When the accomplished Sultan, the exalted and beloved,
 Had been married
 Some months and some days,
 The Queen of royal race was pregnant.
- 9 When his majesty saw this
 The more his heart was filled with love.
 It was as if he had found a hill of jewels,
 To see the pregnancy of his consort.
- 11 The Prince remained for some time in his realm,
 In continual happiness.
 There came a time when, finding misfortune,
 The Prince left the throne of his kingdom.
- 13 There came upon a certain time
 A bird flying from the heavens,
 The bird Garúda, a mighty bird,
 Destroying and desolating the land.

NOTES.

*Line 14. گرو Gárúdá or گرد Gúrdá is a monstrous bird, which Malay romancists usually evoke for the purpose of desolating a country. In the History of Kedah it is related, "Maka datanglah saekor búrong Gúrdá iáng ámat bésár : máká úsálniah burong itu déñpadá

- 15 Dátáng meniámbar súaráníá bháná
Gamparláh sikkán mília dan híná
Sàisí negrí gúndá gúláná
Membáwá diríníá bárang kámáná.
- 17 Bágíndápún sídáng dehádap orang
Menìngarkan gampar seperti práng
Bertítah bágíndá rájá íáng gáráng
Gampar íní ápakáh korang?
- 19 Demílah menìngar títah bágíndá
Berdátáng súmbáh súatú bídúandan

- 15 It came seizing, with a terrible cry.
All were in commotion, high and low,
The whole land, in a tumult of consternation.,
Betook themselves whithersoever.
- 17 The King, whilst in the presence of men,
Heard an uproar as of war:
Then enquired the Prince, the bold King,
“What is the cause of this uproar?”
- 19 When the words of the King were heard,
A certain Bidúanda approached (and said)

NOTES.

ánáh chúchú maharaja Rewana: maka Gúrda ítúpún dúdúhlah íáh de-sana menchári makan. Adalah akan búrong Gúrda ítú pada masa zaman Sri Rama dan Handoman ía biesá maso prang baníajuga kasaktianníá. Maka segala benatang íang terbang dan íang melata berjalan debúmi takút akan díá ítú.” Although there is some confusion here respecting the ancestry of Gurda, it is clear that his original was Garúda or Gúrúru who makes so considerable a figure in the mythological romances of the Hindus, as the impersonation of strength and swiftness, the bearer of Vishnú, and from his frequently aiding the gods, as on the occasion alluded to in the History of Kedah. The Hindus generally represent him as a youth with the head and wings of a bird, and as the vehicle of Vishnu this is his form; but he is also described as an adjutant, or a kite. The Malays have apparently drawn their idea of Gurda from the latter bird, for they represent him as a *búr-ong láng* or kite, with a long beak, two heads and four talons, and of a size so prodigious, that, when he flies, his shadow covers a whole country. The Hindus relate, that when Garuda burst from the egg in which he was hatched, his body reached heaven. The *láyáng láyáng* or paper kites, which the Malays (men and boys) delight at a certain season in flying, have sometimes a garuda painted on them.

Line 16. *Literally*, the whole contents of the country.

„ 19. *Bídúanda*, a life-guardman.

“Doulut túankú, dúlí srí pádá !
Páteh siklían díperhambat Garúdá.”

- 21 Sitláh bágingdá meníngárkan súmbáh,
Darjá íang mánís púchat berúbáh.
Mantrípún bángkit dádáh dítabáh,
Bertambáláh bágingdá hátí ralbáh.
- 23 Pútrípún hámíl tújoh búlan,
Bertambáláh bágingdá sángat kashrolan ;
Dípímpín bágingdá, túrún berjálán,
Súátúpún tíádáh ádáh perbakálán.
- 25 Meníaráhkan dírí samátámátá
Kápádá Alláh túhán samastá.
Pútrí tátápát berkátákátá ;
Berjálánláh íáh dangan áyir mátá.
- 27 Bebrápá melálúi kámpóng dan pádáng
Selangká pánas bági derindáng.
Ítámláh ádindá kúning íang lédáng
Bertambáh pílu, kalbúniá sídang.
-
- “Prosperous Lord, (I prostrate myself) at your exalted feet!
All your slaves are chased by Garúda.”
- 21 When his majesty had heard this address,
His gracious countenance became pale ;
And the Mantris arose, beating their breasts,
While trouble increased in the heart of the King.
- 23 The Princess, too, was pregnant seven months,
And the soul of the King increased exceedingly in sorrow.
He took her by the hand, and went forth
Unfurnished with a single provision.
- 25 They committed themselves wholly
To God the Lord of all.
The Princess could not speak ;—
She walked in tears.
- 27 They passed many villages and plains,
Scorched at every step by the heat ;
The Princess before of a beautiful yellow became dark,
And grief the while grew and gathered in their hearts.

- 29 Sámpeiláh bágingdá kadálani hútan
 Túbohníá lúká berkrátkrátan
 Kiná terkáút dúrí rotan
 Tambáhan pútrí dangán kabrátan.
- 31 Sakítnúá tiádá lagi terprí
 Blás memandáng kálákúan ístrí
 Tiádáh terbaúá túboh sindíri
 Oléh bágingdá dípimpín jári.
- 33 Súngatláh blás dídalám hátí
 Melíhatkan hahníá ádiníá sítí
 Sapanjáng jálán bágingdá berhintí
 Báráng káhandáníá bágingdá terúti
- 35 Dúá búlan dúá hárí dan másá
 Limáhláh badan litéh dírásá
 Dítanggongníá tiádá lagi kwásá
 Trúsláh bágingdá súátú dewásá.
- 37 Trúsláh kakámpong s'orang sóudágar
 Jálánníá súlít terlálú súkar

- 29 The Prince arriving within the wild forest,
 His body was wounded and lacerated,
 Being caught by the thorns of the ratan —
 Whilst the Princess walked more and more heavily.
- 31 Her trouble became indescribable.
 Grieving to behold the condition of his wife,
 Who was unable to support her own person,
 The Prince led her by the hand.
- 33 Deeply grieved was he in heart
 To see the state of the beloved Lady.
 At every step the Prince paused,
 Yielding to all that she wished.
- 35 Two months and two days having now passed,
 And her body become weak and languid
 Without strength left any longer to support herself,
 Passed the Prince upon a time,
- 37 Passed to the kampong of a merchant,
 The road of which was uncertain and very difficult.

Berhintíláh bágindá díluár págár
Berhintíkan liláh siráyá bersandár.

- 39 Títáh bágindá rájá súltání
Kámpong síápá garánga*n* íní
Handáh másóh tíadá brání
Bailáh ákú berhentí dísiní.
- 11 Pútrí menángís siráyá berkáta
Kákandá úú! ápá bichará kítá
Sákít prút rásáníá bétá
Berdabbar liníáp didálám chítá.
- 13 Mashròl bágindá tíadá terkérá
Hílángláh búdí, liníáp bechará
Berkátá danga*n* perláhán súará
Kálú tuán hindáh berpatrá.
- 15 Maríláh tuán kítá berjálán
Gágáhláh sedíkít perlahánlahán
Mencherí súngie tampát perhintían
Sipáyá kítá jángga*n* kasúsáhán.

The Prince rested without the fence,
Rested, fatigued, and leaning.

- 39 Then said the Prince, the Rajah Sultani,
"Whose kampong may this be?
I would enter, but fear to do so;
It is better for us to wait here."
- 11 The Princess wept, and said,
"Alas, my love! what shall we do?
I feel pain in my womb,
And the beating of my heart is ceasing.
- 43 The distress of the Prince was beyond measure.
Lost was his judgment, his counsel was gone.
(At length) said the Prince with a soft voice,
"If you are about to be in travail,
- 15 Come, beloved, let us walk on—
Make a gentle effort to sustain yourself;
That we may seek a river where we may repose,
In order that we may not be distressed."

- 47 Berjālanlah bāgindá lákí ístrí
Sambíl bāgindá mimímpín pútrí
Tipí súngie júgá hinda dichárí
Dúá tígá lángká singáh berdírí.
- 49 Sitlāh bāgindá sámpei ka pántei
Dilíhatníá práhú diátás lántei
Langkaplāh sikalíán kájáng dan lántei
Báílāh pútrí dúdúh berjúntei.
- 51 Búlanpún sídáng pernámá ráíá.
Tráng chúáchá sángat bercháíá
Pútrínán sákít tiádá berdáíá
Bāgindápún blas memandáng díá.
- 53 Párasníá búlan ampátblás hárí
Púkúl tígá, díná hárí

-
- 47 The Princes went on, husband and wife,
The Prince leading the Princess,
Seeking for a river side,
Pausing every two or three steps.
- 49 Until the King reached a bank
And saw a prau provided with a deck,
And completely furnished with kajangs* and lanteis† ;
“ Here, my Princess, recline at ease. ”
- 51 The moon was near its full and festive,—
The light of its brightness shining exceedingly—
The Queen was in pain, unable to conceal it,
And the King looked on her compassionately.
- 53 By the moon's face it was fourteen days (old).
At the third hour before the dawn,

NOTES.

Line 50. *Lantei*—Moveable frames used for flooring in huts and boats, and made of split neebongs or bamboos, about half an inch separate, fastened with ratans.—*Kajangs*—Mats made of kajang leaves.

“ ” *Dúdúh berjúntei*—To sit with the feet dangling; which the Malays do, in preference to their ordinary practice, when fatigued with a journey, in order to allow the muscles to be relaxed, which they are not in their ordinary mode of sitting. A Malay on entering a house tired with walking will seat himself with his feet hanging down, and apologetically say “ wait a moment till I have recovered from my fatigue,” as it is considered a breach of manners to do so at other times.

“ ” 53. This and the three succeeding verses are highly melodious

- Jamjam darjá bersísrí
 Bágingdápún sáŋgat bláskan pútrí.
- 55 Sapúisapúí áŋgín salátán
 Berkokoláh rámeí haíem díhután
 Dangan mīrah bersáhutsáhután
 Sipertí mengálúálúkan ánáh súltán.
- 57 Búlanpun sabláh dísapút áwan
 Sipertí múká ánáh peráwán
 Meŋginté kákáséhníá málúmálúán
 Bersálinláh pútrí sa'oráng perámpúan.
- 59 Bersálinláh ádin dá sa'oráng pútrí
 Párasníá láksáná Mandúdári
 Sákitníá tíadá lágí terprí
 Diríba báging dá kápálá ístrí.

The moisture on her face glittered,
 And the Prince deeply pitied the Princess.

- 55 Softly softly blew the south wind:
 The wild fowl in the forest cried in concert:
 And the peacocks answered each other on every side,
 As if welcoming the child of the Sultan.
- 57 The moon on one side was hidden by the clouds,
 Like the face of a young maiden
 When bashfully stealing a look at her lover,
 And the Queen received a daughter.
- 59 Received the beloved Lady a princess,
 Whose countenance was like that of Mandúdári:
 Her pain became insufferable —
 And the King supported the head of his wife.

NOTES.

and sonorous; nor is the picture and its accessories unworthy of the language.

Line 57. *Sapút*—Probably derived from *sapú* to sweep, to wipe; *disápú áwan*, swept by the clouds; *disápút áwan*, hid or covered by the clouds. It is only used as thus applied to the moon.

„ 58. This elegant and refined use of the word *salín* (which, in its ordinary senses, is to pour from one receptacle into another, to change the dress, to translate, &c.) is not noticed by Marsden or Van Eysinga.

„ 59. *Mandúdári*—The wife of Rawana, and celebrated for her beauty.

- 61 *Ānāhnīā pūtrī paspā wornā*
 E'lohnīā bāgī ānāhānāhān kanchānā
 Laksānā būṅgā champākā wornā
 Mākā dīgūbā sa'orāng rānā.
-

- 61 The infant of the Princess, the flower complexioned,
 Was in beauty like the golden children,
 Like the colour of the champaka flower
 Made into a garland by a Queen.

(To be Continued.)


TO ALL WHO ARE WILLING TO AID IN ACCOMPLISHING
THE OBJECT OF THE JOURNAL OF THE INDIAN ARCHI-
PELAGO AND EASTERN ASIA.*

MANY of our friends whose aid we have solicited in contributing to the Journal have expressed their willingness to give it, but some of them have hesitated as to the topics on which they should treat, and others have pleaded a deficiency of practice in observing, and committing observations to writing in a methodical manner.

We have found it very useful in practice to draw up a short memorandum of desiderata before proceeding to make enquiries on any subject, because it frequently happens that, when fairly engaged in the work, some aspects of it assume an undue relative interest and carry away the attention from others. A general scheme of desiderata may prove equally useful in reducing to some order the enquiries of those who are about to investigate a district or country as fully as they can, and in enabling those whose design is more limited to select any subject to which their own taste, information or opportunities may most incline them.

We have prepared the subjoined scheme of desiderata to assist ourselves and others; and should any, notwithstanding its defects, find it of use in directing their enquiries, we beg they will not forget that the Journal will always be open and at hand for contributions to general information of all sizes from a paragraph to a treatise, and that, from the number of copies which we shall distribute amongst Societies, Journals &c. in India, England, the Continent and America, such contributions will be sure to reach those who will best appreciate their value.

To those who are disposed to aid in the collection and communication of facts, but who may be doubtful of their ability to do so, we would say in the words of Sir John Herschell,—“There is scarcely any well informed person who, if he has the will, has not also the power to add something essential to the general stock of knowledge, if he will only observe regularly and methodically some particular class of facts which may most excite his attention, or which his situation may best enable him to study with effect.—In short there is no branch of science whatever in which, at least if useful and sensible queries were distinctly proposed, an immense mass of valuable information might not be collected from those who, in their various lines of life at home or abroad, stationary or in travel, would gladly avail themselves of opportunities of being useful.”

* *The object is to gather from all sources, and publish in the English language, knowledge, in the widest sense, of the Archipelago &c.— The roughest notes on any one of the particulars mentioned in the Scheme of Desiderata, will be useful and acceptable.*

Every subject has its common and obvious as well as its more latent scientific aspect. Things which we are apt to consider as devoid of intrinsic interest or value because they are familiar, often, when viewed merely in their former aspect, form the most attractive matter of popular books of travels. We are occasionally surprised to find the minds of the most intelligent classes in Europe and America occupied on the most common details around us, and evincing the liveliest interest in them; and we have often to regret that, when facts so familiar to us and so easy of description are worthy of their attention, more care has not been taken in describing them correctly. Any resident in this part of the world who would take the trouble to give a short account of the commonest matter around him with that accuracy of which only a resident is capable, and in the spirit, or with some reminiscences, of the impression which its first sight made upon him when everything eastern was new and striking, would be sure to find grateful readers, and often to correct some prevailing errors, in Europe.

SCHEME OF DESIDERATA FOR THE INDIAN ARCHIPELAGO &c.

I. *Physical Geography and Natural History of the district or country under observation.*

1. Configuration,—elevation,—proportion of flat to hilly, elevated to low, and dry to wet land,—lakes,—rivers,—tides and marine currents, &c.
2. (a) Temperature of air, water and ground. (b) humidity of air and ground. (c) atmospherical pressure. (d) evaporation. (e) quantity of rain. (f) dew. (g) fogs. (h) winds and tempests. (i) electricity. (k) average annual proportion of cloudy to clear days. (l) purity of atmosphere or the reverse,—causes of impurity. (m) seasons.
3. *Geology and mineralogy.**
4. *Botany** (a) description of plants and their uses. (b) Botanical topography or the distribution of plants in the district or country.
5. *Zoology** (a) description of animals. (b) animal topography.

II. *Human Inhabitants.*

6. Races by whom the district or country is inhabited.
7. *Their respective physical and mental characters.*—*ex. gr.* (a) stature and proportion of parts,—general bodily configuration,—peculiarities in form of head in particular, and of other parts of the body,—physiognomy,—complexions. (b) health, longevity,—diseases,—mortality. (c) ages of puberty and marriage, proportion of the sexes,—chastity or the reverse,—polygamy,—ordinary number of births in a fa-

* We intend to prepare for circulation a series of queries relating to these branches of knowledge.

mily. (*d*) character of intellect,—degree of cultivation,—refinement or coarseness of feeling,—susceptibility to music, poetry, &c.,—benevolence,—revengefulness,—veracity,—general robustness or weakness of character,—independence or servility,—pride,—respect for rank, age, women, learning &c.,—attachment to offspring,—morality,—influence of religion &c.

8. Intermixture of races, and varieties of physical and mental character thereby produced.

9. Influence on physical and moral character of facts falling under 1, 2, 3, 4 and 5 of the preceding heads, and also of different occupations or modes of life.

10. Numbers, distribution, industry, of the population,—a general comparative view of the occupations, arts, architecture (general character of cottages, houses, public edifices,) &c. of each race or variety; and any observable deviations in these matters by foreign settlers from the practice of the place on the one hand or of their native country on the other.

11. *Political and public characteristics*: Government,—amount and sources of revenue,—expenditure for public purposes of a political, economical, religious, educational or charitable nature,—public and social institutions,—laws, civil and criminal,—customs,—religion and religious observances.—Distinctive *national* feelings and habits,—war, diplomacy, commerce, navigation, emigration, reception of foreigners; prejudices of state, race or religion; and generally, how the people as a nation, or its constituent tribes or classes, affect or are affected by other nations, tribes or classes.

12. *Social habits*, including festivals, ceremonies, games, amusements, songs, dances, hospitality, charity, salutations, compliments, visits, social intercourse between the sexes, usages connected with deaths and funerals, with the memory of the dead &c.

13. *Marriage,—domestic habits and economy*,—authority and power of husband,—position of wives &c.,—condition of servants,—usages connected with births,—training of children,—education,—religious instruction &c. Dress,—bathing,—food,—modes of cooking,—meals,—confectionary,—(use of seree, tobacco, opium, arrack &c.),—domestic animals, and their derivation and varieties,—items in the expenditure of a family.

14. *General characteristics produced by moral and intellectual character not falling under previous heads*.—crimes,—superstitions (spirits, genii, witches, or other supernatural beings, saints, charms, talismans, omens, magic, astrology, alchemy &c.)

* * * *The subjects included under heads 11, 12, 13 and 14 require to be considered with reference not only to the different races inhabiting the same district, but to the different classes, castes, grades or social positions of the individuals composing the same race.*

15. *Language*.—structure,— derivation;— composition (if little

known, give vocabularies, specimens of writings and colloquial phrases &c.) dialects,—diversities of pronunciation &c.

16. *Literature*,—general character,—works in different classes of composition, and their merits,—specimens of the most approved and popular—cultivation of literature,—popular recitations &c.

17. *Science and fine arts*:—Arithmetic, astronomy, divisions of time,—weights and measures,—instruments for calculation or measurements,—medicine,—music,—painting, sculpture and carving.

18. *Economical productions, Industry of the country, and Occupations*:—

(a) Natural productions procured without cultivation &c.—vegetable (wood, ratans, dyes, gums, &c.) mineral (precious stones, metals, coal, &c.) animal (fish, trepang, tortoiseshell, wax, &c.)

(b) *Agriculture*,—different kinds of cultivated plants,—their distribution,—respective quantities,—description of each particular plant, its habits, favourite localities, climate, soil, manure, different modes of cultivation by the same or different races,—machines, implements and animal used,—arts and manufactures carried on in, and connected with, plantations,—economy of cultivation,—capital or industry how supplied,—expences,—reimbursement of labourers,—profit,—landed tenure,—rents,—operation of taxes upon labour or produce &c.

(c) *Manufactures and arts*,—description of all articles made or manufactured and of their raw materials, the processes of making or manufacturing them, including the instruments used in so doing, ships, boats, vehicles, articles made of wood, metals, &c., roofing, mats, weaving, cloths of all sorts, dyeing, carpentry, bricks, hewn stones, oils, &c., &c.

The economy of each kind of produce, art and manufacture.

(d) *Internal traffic, and external commerce*,—currency, barter, sale, credit, lending, interest, partnerships and joint transactions, means, modes and cost of correspondence and carriage,—markets, shops and details of their economy,—fairs,—exports and imports,—harbours,—navigable rivers,—regulations and imposts at seaports and their effect on commerce,—navigation and its economy,—commercial intercourse with other nations,—nature and amount of commercial transactions.

(e) *Division of labour, account of every species of occupation*,—the number of persons engaged in it, its effect on the person, habits and character,—peculiarities in the dwelling places, domestic economy &c. of those engaged in it,—the estimation in which it is held,—its average remuneration, and general personal and social advantages or disadvantages.

19. *General topography*, i. e. accounts of towns, villages, public edifices, antiquities, monuments, burial-places &c.

20. *Physical, medical and moral topography*, i. e. local varieties and peculiarities in different sections of the district or country in physical form, health, climate, character, habits, and generally in respect

of any of the subjects included under the preceding heads and not pertaining to the next head.

21. *Economical topography*,—statistics of each natural or civil division of the country, with reference to its agriculture, soil, and other circumstances affecting its economical value,—its capabilities for increased productiveness of all kinds, and for supporting an increased population,—its adaptation from climate &c. as a residence for the more adventurous and industrious emigrating races, such as Europeans, Chinese, &c.

* * General remarks on the subjects included under heads 11 to 18, with reference to their condition relatively to other countries—suggestions for the improvement of 17, 18, &c.

* * In a Scheme of this kind there is almost unavoidably some repetition, because it is not a scheme for one connected work, but a series of suggestions and samples for obtaining contributions under any head, or relating to any particular. There are two modes of dealing with its subjects which an example will best explain. A particular art, for instance, may be followed over every district, and through all the tribes, of a country, and the variations which it undergoes in different hands or places, will give to such a mode of description a high interest. On the other hand, a single tribe may be taken and followed into all its life and work, and this will give a complete view of the tribe.

22. *History*.—Original derivation of inhabitants,—progress of population and civilization, agriculture, arts &c.,—changes in law, usages, and manners; influx and influence of new races &c.

* * Almost all the subjects mentioned in this scheme have their historical aspect, and their true present character cannot be fully understood without considering the series of successive events and changes in which their existing condition has resulted.

☞ The reduction of every species of information that admits of it, into an arithmetical or accurate quantitative form, although sometimes attended with labour, gives it a far greater value, both for practical and scientific purposes, than if it were merely stated in a loose or general manner. Almost every subject has its quantitative point of view, and if this be neglected, a most important, and, in many cases the essential, element of its real science has not been furnished. Thus tables of daily temperature, humidity, rain, wind, electricity &c., are meteorology expressed at large, and the science resolves itself into an exhibition of them by shorter expressions. Every thing physical or moral should be considered descriptively so as fully to express its individual or intrinsic existence, and quantitatively, so as to ascertain its relation to the whole, that is, its importance and influence in the general system of things of which it forms an integral part. Without attending to the summation of facts, no correct view of a nation or country can be presented. It is the association of different physical and mo-

ral beings, powers and influences, that gives its distinctive character to a country ; and that association cannot be understood without a definite description of each kind of being, power and influence, an approximation to their respective number and quantity, and an estimate of the mutual influence and relative importance of the sum of each. Geography is only a science so far as it strives to attain this estimate. When it shall completely succeed, it will take its proper rank as the greatest of all sciences, because it will be an induction from the results of every other, and furnish true statistical laws for the attainment of the greatest human good in every region. Meantime every contribution of a single fact, or correction of a single error, helps to complete its basis of data.



P. A. Seth. Lith.

K. M. M. Delt.

COCHIN CHINESE.

THE
JOURNAL
OF
THE INDIAN ARCHIPELAGO
AND
EASTERN ASIA.

DETAILS RESPECTING COCHIN CHINA.

By the Right Reverend DR. LE FEVRE,
*Bishop of Isauropolis and Vicar Apostolic of Lower
Cochin China.**

FORMATION OF THE MONARCHY.

IN the course of the fifteenth century, the King of Tongking took possession of some provinces close to his kingdom, and subject to the King of Ciampa. In the sixteenth century a family of Tongking, called "Ngu yen," who had rendered many services to the King, was by him raised to the dignity called "Chua," which was the first dignity after that of the King called "Vua." The descendants of Chua Ngu yen obtained the governorship of the two provinces taken away from the King of Ciampa. In the same century this family shook off the yoke of the King of Tongking, and this gave birth to the kingdom of Cochin China, which was thus called by the Portuguese to distinguish it from *Cochin* on the Malabar Coast. The natives called it first "*An Nam*" (the peace of the south) a name which is still commonly given to it, but its official name, after many changes, is at present "*Dai Nam*."

* Written by his Lordship for this Journal at the instance of the Honorable Colonel Butterworth, C. B., Governor of the Straits Settlements.

KINGS OF COCHIN CHINA.

Twelve Kings have reigned in Cochin China since the formation of the monarchy.

The first,	Tien Vuong,	reigned from	1570 to 1614.
Second,	Sai Vuong,	ditto	1614 to 1635.
Third,	Thuong Vuong,	ditto	1635 to 1649.
Fourth,	Hien Vuong,	ditto	1649 to 1668.
Fifth,	Ngai Vuong,	ditto	1668 to 1692.
Sixth,	Minh Vuong,	ditto	1692 to 1724.
Seventh,	Ninh Vuong,	ditto	1724 to 1737.
Eighth,	Vo Vuong,	ditto	1737 to 1765.
Ninth,	Hien Vuong,	ditto	1765 to 1777.

Then there was an interregnum of two years. The Tongquinese took the northern part of Cochin China. Some rebels called "Tay Son," occupied the throne up to 1801. In this year the legitimate King "Gia Long," after having gained many advantages over the rebels, being assisted by the counsels of a French Bishop, Mgr. Pigneaux, Bishop d'Adran, and by many able French officers, recovered his kingdom, and, in the following year, took that of Tongquin, and assumed the title of "Emperor." He died in 1820. One of his sons succeeded him under the name of "Ming Mang." He was the famous persecutor of the Christians. He died in 1841, and at the present time his son, Thien Tri, is in the sixth year of his reign.

The old family of the Kings of Tongking still reckon many partisans in this portion of the kingdom. They have often made efforts to shake off the yoke of Cochin China, but without success. At present they are so weak that they have little hope of again rising by their own exertions from their humble condition. The Kings of Cochin China have also taken successively all the kingdom of Ciampa, and the greater portion of Cambodia, so that the country called in maps Ciampu and Cambodia belongs almost entirely to Cochin China, and is chiefly inhabited by Cochin Chinese.

There are on the mountains, which divide Cochin China from Laos, many wild tribes ; some of whom are subject to the King of Cochin China ; others are only his tributaries, and others finally are independant.

The King of Cochin China is himself tributary to the Emperor of China, from whom he receives investiture when he ascends the throne; and he is obliged to send him an embassy with presents at least once every three years.

POSITION AND GEOGRAPHICAL DIVISIONS OF COCHIN
CHINA.

This country extends from Pulo Ubi in the $8^{\circ} 25'$ to 25° latitude, north. Its breadth is from five to six leagues. Tongking is much larger. It begins at the river called Soih Giang, about $17^{\circ} 15'$ north. It is divided into fourteen prefectures, the names of which are as follows, beginning from the south.—

Ngê an,—Thanh Nôi,—Thanh Ngoai,—Hung hoa,—Nam Thuong,—Nam ha,—Hai dong,—Kinh bac,—Son Tay,—Cao bang,—Lang bac,—Thai nguyen,—Tuyen Quang, and Yen Quang.

There are in Tongking only two towns properly so called, Ke cho or Bai thanh (the town of the north): the former capital of the kingdom: and Vi huang, a petty commercial town. They sometimes call the chief place of each prefecture, a town; but improperly, because there are generally so few inhabitants, that it is more a village than a town.

Cochin China properly so called is divided into fifteen prefectures. It may also be considered as divided by nature into three portions, which form Upper, Middle, and Lower Cochin China. Upper Cochin China, which is in the north, comprises three prefectures.

The first, Quang Binh, is close to Tongking. The second is Quang Tri, and the third Thua Thuen, in which Huê the capital of the whole kingdom is situated. This town is built almost in the European style. It was surrounded by strong fortifications under King Gia Long by French officers.

The portion called "Middle Cochin China" comprises six prefectures: Quang Nam, in which is the fine port of Touron: Quang Ngai, a sterile province: Binh Denh, one of the finest and most renowned provinces of the whole kingdom: Phu yèn, a province rather rich: Khon hoa, or Nhia Trang, a hilly and fertile country: and Binh Thuan, a very large province, which comprises the old kingdom of Ciampa: it is barren, and not much inhabited in proportion to its extent, and has many wild animals of all kinds, such

as the tiger, the wild buffalo, the elephant, the rhinoceros, etc. etc. It would be most dangerous to travel alone in this country.

Lower Cochin China, or Dong Nai, comprises seven prefectures. The first, beginning at the north, is *Biên Hoa*; the second, *Gia Dinh*, where is the town of *Sai Gon*, formerly frequented by French vessels, and laid down on charts; the third, *Dinh Tuong*; the fourth, *Vinh Long*; the fifth, *An Giang*; the sixth, *Ha Tin*; and the seventh, called formerly *Nam Vang*, and now *Trân*. It is in this last province that the town of *Colompé*, the former capital of *Cambodia*, is situated. It has been lately taken again by the *Cambodians*, and, it is said, that it will be difficult for *Cochin China* to keep this place, owing to the want of sufficient troops.

All this meridional part of *Cochin China* is the more fertile on account of the many rivers which intersect it in all directions. It produces rice in great quantity, and it also yields cotton, mulberries for silk worms, and fruits of all kinds. It is justly called the "Garden and Granary of *Cochin China*." Unfortunately luxury produces many vices. Hence gamblers, drunkards, opium-smokers, and, as a consequence, robbers, are found there in greater numbers than in any other part. Journeys are generally effected by boats, but rivers afford every facility for navigation, and a large vessel might go up very far.

Tongking and *Cochin China* are traversed throughout by a royal road or highway. It is the only one that exists in the country. In many places it is badly constructed, and not well kept. I have been along it from *Sai Gon* to the royal city. It is intersected by a great many rivers or rivulets, without bridges, which you must either wade through, or cross in a boat.

There are some very high mountains, chiefly between the provinces of *Nhia Trang* and *Phu yèn*, and those of *Quang Nam* and *Thua Thièn*, the passes of which are very difficult. It would be impossible to travel in a carriage, and one cannot ride on horseback far, for the horses being unshod, are unable to carry a man farther than half a day's journey: the *Mandarins* generally travel in a litter. You meet here and there trained bearers, who, however heavy the burden may be, can go far in a short time. Those who carry the royal despatches go fifty leagues in a day.

RIVERS.

The chief River in Tong King is "Sông Cả", or the Great River, on which is situated the ancient capital of Tong King. The French and English had formerly an entrepôt on it. It receives, on its course, many large streams:—Sông Chay in the province of Tuyen Quang, Song Ngue and Song Diem in the province of Hung Hoa. Tue Duc in the province of Lang Son and Thien Duc in that of Hai Dong, join the same at its mouth. The Song Ba, the source of which is in the Mountains of Laos, and which falls into the sea close to the Port of Cua Lac, is also a large River. The Sông Mo in the province of Nyê An empties itself into the sea by three branches. It is a great and large River. The Sông Giao, which divides Tong King from Cochin China, is half a mile broad about its mouth. The Sông Vê in Quang ngai; the Song da Lang in Phu yên; the Song Luong in Binh Thuan; and the Song Cam rauh, which separates this province from Lower Cochin China, are all Great Rivers. But the finest and largest of all the River of this country are those of Lower Cochin China; being almost all branches of the great River of Laos and Cambodia, called Mekon. It has four principal branches up which the largest vessels might sail further than the limits of Cochin China. They are in some places more than a mile in breadth.

MOUNTAINS.

Cochin China, throughout nearly the whole of its length, is situated on the declivity of the mountains: inhabited by the barbarians called *Kemoi*: which separate it from Laos. This chain of mountains stretches from the west of Cochin China, in a north and south direction, from 11° to 22° of latitude. By this position the surface is agreeably diversified, elevating itself, as if by degrees, in the form of an amphitheatre, from the shore of the sea to the summit of these mountains. There are numerous lateral branches, which stretch down to the sea; between which there are formed many vallies and even large plains, of which the soil might be rich and fertile with all the variety and beauty of the vegetation of the tropics, if it were not almost generally abandoned to its spontaneous productions, and deprived of the aid of a skilful culture. The two principal prolongations or ramifications of this chain of mountains, are those which se-

parate the province of Quang-nam, in which is found the harbour of Touron, from that of Thua-thiên, where the capital is situated, and which is called Aivan; and those which divide the province of Thu yên, and Nia trang, and which is named Deo Ca. There is also a secondary chain of mountains which separates Tongking from China. The greater part of these mountains are only inhabited by some barbarians; the Cochin Chinese, and much more the Europeans, cannot live on them, on account of the insalubrity of the air which we breathe there. I once took refuge upon the side of one of these mountains, in order to find an asylum against persecution; but I had reason to repent of it. I was attacked by a very serious illness, whilst two élevés, whom I had with me, there lost their lives. These mountains offer a very varied spectacle to the view; here are frightful precipices,—there arid rocks,—elsewhere verdure, streams, water-falls and trees; there are lofty peaks which project themselves above the clouds,—and, in other places, a level surface, commonly covered with extensive forests.

MINERALS.

We do not find on the mountains of Cochin China a single volcano, either active or extinct: but in many places mines of gold and silver occur which the natives do not know how to work. The Government itself employs means for working the mines which only discourage the workmen. Much gold, however, is collected from the sand of the mountains. This sand is thrown into the neighbouring river, and the current disengages the particles of gold, which are collected, but with much pain and fatigue. It is in this manner that they seek the gold in one of the mountains which are situated opposite to the harbour of Touron. But the principal mines of gold and silver are at Tongking. Mines of iron, copper, lead, tin, and of zinc are also found in abundance.

CLIMATE.

The latitude of this country sufficiently indicates the high temperature of the climate. We may conceive that it must offer a sensible difference in a length of fourteen degrees. There is never any ice, snow or frost, nor even hail; but the cold cannot fail to be sharp in winter from the 23rd to the 15th degree, when the wind blows strongly from the north: from the 15° to the 10° win-

ter does not make itself felt except for some days by a wind more or less cool, and in general unwholesome. In the meridional part called Lower Cochin China, there are six months of dryness, and six months of rains: these rains produce a great humidity in the atmosphere, which renders the province unhealthy, especially about the month of April, the time when the rains begin to fall: the evaporations which then proceed from the ground are an almost general cause of fevers and other diseases. In the northern provinces the time of the heavy rains is in September, October and November. They sometimes fall in such large quantity that they produce inundations which spread over the whole country; these generally occur during a period of five days in the months of October and November. These inundations last two or three days, and contribute much to fertilize the soil; they also sometimes cause great disasters. In November 1844, an inundation desolated the whole of the province of Thua thiên; the rain was accompanied by such a violent wind that all the houses and nearly all the walls were overturned during one night; five or six thousand persons perishing. In the month of November last year, after a heavy inundation, the earth of a field in the neighbourhood of the capital sunk in one night, and formed a lake of 12 feet in depth, 30 feet broad and 120 feet in length. I was consulted as to the cause of this phenomenon, of which they had never had an example, and which even infused some fear into the soul of the monarch who governs the kingdom. Not to leave the question without answer, I said that we might suppose that the waters, running from the heights of the mountains with impetuosity and in great abundance, had excavated a large and deep tunnel, and that the earth of this field, softened by the rains and deprived of support, had thus fallen in. This reason appears to me to be very plausible, but I leave the decision of this question to more scientific persons.

In Lower Cochin China there are not such abundant rains or similar inundations, but, on the other hand, the ground being almost on a level with the sea, in the high tides, the water of the rivers overflows and covers the whole country. It is this which renders this part of the country the most fertile of all. They have only one crop of rice in the year, about the month of Fe-

bruary, but this single crop yields much more rice than the two crops which they have in the other provinces, the one in April and the other in October. Sugarcane, tobacco, cinnamon, silk, cotton, indigo, yams and potatoes are also very abundant. Fruits, such as citrons, plantains, pine apples, and many other kinds are also more common in this part than in others: it is on account of this that they say in the language of the country *that it is easy to find there the means of living*,—it is to be regretted that we are obliged to add *but it is difficult to live there* (in good health!)

PLANTS.

Besides minerals the mountains further furnish excellent wood for timber work, such as the pine, the oak, teak wood; and also the ebony, aloes wood and the eagle wood which they use as medicine, and which they sometimes sell in China and at Japan as high as 100 dollars the pound. These precious woods, to which the cinnamon tree ought to be added, are ordinarily reserved for the king and the great mandarins. Much, however, is sold surreptitiously. The most common tree of all, and of more daily use, is the bambú. The areca and the betel are also cultivated with the greatest care and yield a large profit to the proprietor on account of the general use which is made of the areca and betel in the country. The tea of China grows badly in Cochin China; the tea of the country is inferior in quality: it is less strong and less heating than the tea of China. Amongst the medicinal plants, they principally make use of angelica, of the large celidony, of the Chinese smilax, of master wort, and liquorice. The herbal of Cochin China has been already published; I propose to subjoin it to this paper, for which reason I have the less enlarged here upon this head.

ANIMALS.

The mountain and forests of Cochin China are inhabited by the elephant, rhinoceros, tiger, boar, the stag, the bear, the buffalo and many other wild animals. There is a menagerie in the king's garden; one of his amusements and favorite sports, is to cause an elephant or a buffalo to fight with a muzzled tiger. There are at least 60 elephants at the royal city, and from 20 to 30, in each province, a few excepted. The domestic animals such as

oxen, cows, and buffaloes, are very common, but they are productive of little profit, except in the way of labor. Their flesh is far from agreeable to the taste; it may even be said that it is bad, because they bestow no care in fattening these animals. They are entirely unacquainted with the good custom of milking the cows. The flesh of the hog is the most delicate; it is much superior to that of our hogs of Europe; it is the custom to kill a pig each time they give a dinner to a certain number of guests. There are some flocks of sheep in the neighbourhood of the capital, but they do not eat them, without doubt for a good reason; they do not shear their fleece; it is very dirty and yields almost nothing. Goats are very common, and are, with good reason, more prized than the sheep. The courtyards are generally well furnished with poultry, ducks, and geese with which they can feast themselves at a cheap rate. The horse of Cochin China is small and weak, it can scarcely carry half the load of our European horse; it is only good for making a journey of some hours.

HARBOURS.

There are on the coasts of the Cochin Chinese empire as many Ports as fifty seven. Seventeen in Tongking: Cua Uc, the farthest in the north; and Cua dai Binh, at the mouth of the great River called Sông Ca on which is situated the former capital of Tongking, Ke Cho; Cua Hô; Cua Traly; Cua Lân; Cua Biên; Cua Xiên. These seven Ports are situated between the 20th and 21st degrees north latitude. Cua Thuoc; Cua Lac; Cua Triên; Cua Hounè; Cua Bich; Cua Bang; Cua Han hon, between the 19° and 20°; Cua Thai; Cua Tro, between the 18° and 19°. The two best and safest of all these Ports are Cua Dai Binh and Cua Lac. Both were formerly resorted to by European vessels.

There are seven Ports in Upper Cochin China situated between the 16° and 18°: Cua Gianh, at the mouth of the great River which separates Cochin China from Tong King; Cua Dong Hoi, a large and fine Port close to the chief place of the province of Quảng Bình; Cua Tong, a large Port; Cua Viêt; Cua Thuan, opposite the Royal city; this Port is not quite safe, a large vessel may ap-

chor within it, but she must be navigated by a clever Pilot, as it contains many shoals: Cua Tu Dong and Cua Moi, both Ports whose anchorage ground is difficult.

In Middle Cochin China between the 15th and 16th degrees, there is the first, largest and safest of all the Ports of Cochin China, the Port of Touron: it has been by some writers described as the finest Port in the world, and it is at the present day the only one resorted to by European vessels. The next to it is Cua Dai or Hoi An, called Fai Fo by Europeans and frequented by their first vessels which resorted to Cochin China. It is very close to the chief place of the Province of Quang Nam. Cua Ap Hoê and Cua Dai Quang ngai, a large Port between the 14° and 15° Sa Huôn, Kim Bong, Tan Quan and Cua thi phu. Between the 13° and 14° are Cua Gia close to the chief place of the province of Binh Dinh, a very large and frequented Port, and Cua Mai nha, close to the chief place of the province of Phú yên. Between the 12° and 13° Cua da Ran a large Port, and Cua hon Khoe. Between the 11° and 12° Cua Cam ranh a safe and spacious Port.

In Lower Cochin China are Cua thé Van, a most safe Port; Cua Cangio a large, spacious and much frequented Port, in which there is much water; Dong Tranh; Soi Rap, not much resorted to; Cua Tiên, a great and large Port much resorted to; Cua Dai not accessible by large vessels or even to large Boats; Cua Bang Côn; Cua Cô Chiên; Cua Vam Ray; Cua Cha Vang; Cua Ba Thac; Cua Mi Thanh; Cua Ganh Han, Cua Bô Dê, Cua Lon, Cua Ong Doc; Cua Cay Quao; Cua Rach Gia; Cua Can Vot or Compong. It would not be prudent to enter several of these Ports without a clever Pilot, owing to the many shoals. The Ports of Cochin China, where the anchorage ground is safest are: Dong Hoi, Touron, Hoi An, Tan Quan, Cua Gia, Cam Ranh, Can Gio, Cua Tien, and Can Vot.

TOWNS.

There are no Towns on the coast. They are all situated at some distance from the sea, but one may reach them by going up the river which leads to them. There are only, as I have remarked elsewhere, five towns properly so called, in the whole of the kingdom; two in Tong King, Ke Cho and Vi Huang; two in Cochin China, Huế and Sai Gon; and Colompé in old Cambo-

dia. Touron and Hói An and the chief places of each province are merely large villages, the inhabitants of which amount to about 3,000 souls, and they are governed just the same as other villages throughout the kingdom.

The Great Mandarin, Governor of each province, the Collector General and the Judge reside at this chief place, which is called *Tinh* or Town of the first order. There are also Towns of the Second order called *Phu*, and of the third order called *Huyên* governed by inferior Mandarins, who are like our sub-prefects and chiefs of *arrondissement* in France. But the word *Thanh*, used to designate all these towns, means nothing else, in the language of the country, but a "walled circuit." The reason is that the House destined for the Mandarins is enclosed by walls. But this word should never be understood in the sense we give in Europe to the word "Town."

Each Province or Prefecture is generally divided into 5 or 6 *Phu*, or sub-prefectures, and into 8 or 10 *Huyen*, or *arrondissements*.

POPULATION.

It is difficult to know accurately the population of Cochin China. I believe that one would not go far from the truth in stating that the number of the Cochin Chinese amounts to 13,000,000. There are besides about 3,000,000 Barbarians, and subjected Cambodians, which makes a total of 16,000,000 inhabitants.

TAXES.

Taxes are levied upon ground in proportion to its quality and are divided into three classes; They are paid in money for uncultivated, and rice for cultivated ground. They are generally low, but not well apportioned; because the collectors are easily bribed. There is also a personal tax for the heads of the chief houses. What is more aggravating for this poor people are the public *corvées*, and the vic-tuals which each district is compelled to provide the soldiers enrolled in it; for the Government does not provide them with the third part of their expences. The mayor or head of each district has it in charge to make up the required number of soldiers and levy duties. He does not receive any salary for this office. On the contrary it very often subjects him to be flogged with the *ratan* and to harsh

treatment, for, when the duties are collected, he is charged to remit the same to the great Mandarin, who does the duties of a Collector General, and he is responsible for the whole district: This great Mandarin is paid by the King; but a very small amount is allowed him: his fixed salary amounts not to above the value of one hundred dollars yearly. However, if he performs his duty well, he sometimes receives (besides his salary) gratuities which mostly consist of fine silk vestments. These gentlemen take also good care to compensate themselves by their exactions from poor people.

INHABITANTS.

The Cochin Chinese occupy a lower rank in the scale of civilization than their neighbours the Chinese. But the resemblance of their shape, their colour, and their features, as well as the identity of their manners, their superstitious ceremonies and their customs, indicate a common origin. The universal practice of chewing betel and areca and of smoking tobacco, which reddens their lips and blackens their teeth, joined to their natural ugliness, render them sufficiently disagreeable to European eyes. A pouch or little bag of silk, attached to their girdle, or suspended from their shoulder when they are on a journey, containing areca, betel and tobacco, forms a necessary part of their dress, of whichever sex and of whatever condition they may be. Every person in the least rich or distinguished is followed by a servant, whose office it is to carry the instruments and the ingredients which serve for mastication and smoking. This people is of a childish and servile character. They make no difficulty in submitting to the most humiliating meannesses before the authorities to whom they are subject, in order to obtain what they desire: hence the repeated prostrations in token of their devotion and submission. When they are interrogated, they never give themselves the trouble of answering the truth, they only think of giving to those with whom they are speaking a reply which will please them. It is requisite to know them well in order not to allow oneself to be deceived by their knavery and duplicity. There is more independant spirit and less hypocrisy in the manner of the inhabitants of Lower Cochin China. It is the Tongkinese who show most outward humiliation in action and speech before their superiors, and in whom one remarks the most hypocrisy.

The Cochin Chinese, in general are possessed of good reasoning powers and a judicious mind; it is this which makes them very susceptible of instruction. We meet very many amongst them who are endowed with a very happy memory, such as we rarely see amongst Europeans. I have met many who could recite long pieces of verse which they had only read one or two times; but in general they are indolent and lazy in spirit; they do not make a step, without being, as it were led and conducted by the hand. Moreover, they only possess the talent of imitation in an imperfect degree. They invent nothing, and improve nothing. They are not strangers to feelings of friendship, gratitude and affection; however, in general they require to be led and kept to their duty by fear. Their mandarins know them well, and, in consequence, they do not spare the blows of the ratan.

Among no pagan people can we expect to find models of chastity, modesty or morality. The idea of evil is much obscured in them by the passions, custom, and the absence of instruction. The Cochin Chinese are given to vices, but less than many other heathen people. They have less pride and less immorality than the Chinese. Gamblers and drunkards are very numerous amongst them, and they have many other faults; but they have also estimable qualities. They are generous, not in regard to strangers whom they dread, but amongst themselves and in respect of those who exercise any authority over them; avarice is a rare fault with them. They are not at all hasty or vindictive; I have often admired how easily pagans forget injuries which our christians of Europe, instructed in the sublime maxims of the Gospel, would resent all their lives.

The Cochin Chinese have an erect carriage. They are in general of feeble health; strong men form rare exceptions: a very great number of children die before the age of reason: old person of 60. 70 and 75 years are less common amongst them than in Europe. but those of 80 and upwards are found in very great numbers. In these hot countries the breath of life which sustains the aged, is more tardily extinguished.

The heat and the uncleanness produce many infirmities in them,—sores in all parts of the body and all kinds of skin diseases. The average number of children in each family is six or seven, and it very frequently rises to 10 or 12; which multiplies the population

very rapidly. Food and maintenance cost so little that the poorest do not give themselves any trouble, and have no dread of being able to nourish a numerous family. Polygamy is allowed; and has become a general rule amongst the great and the mandarins, that is to say, amongst all those who have the means of maintaining several women. According to the ideas of the country, it is obligatory to take a second wife, when the first has no children. For, say they, it is a great ingratitude towards one's parents not to seek the means of perpetuating their race. It is a maxim derived from Mencius, a Chinese philosopher, and is spread and rooted in the whole nation. This polygamy is the greatest obstacle to the progress of the Christian religion amongst the great, but not at all amongst the people. Adultery, on the part of the man only, is regarded but as a very light fault. If the woman has no child, she will not be liable to punishment on account of adultery. If she has one child, it is a capital crime, which according to law ought to be punished with death. If she has several children, she ought to have her body cut in a hundred pieces, and thrown into the river. Parents are attached to their children. They never expose them, and do not kill them as they do in China. Only sometimes they sell them, when they are in great misery. A Cochin Chinese cannot be a slave, according to law, but they may have barbarians for slaves, and they have some.

DRESS.

Flax is unknown in Cochin China; the cloths of which their garments are made, are of silk or cotton. In full dress the outward garment should be a long robe with large sleeves, of a green colour for men, and violet for women. It is to be observed that in the Northern provinces the garments are worn longest, and that they are progressively shorter, as we advance towards the South. Thus at Tongking the upper dress ought to descend to the ankle, or at least to the middle of the calf; in the neighbourhood of Hué it only descends to the knee; and in Lower Cochin China it does not pass the middle of the thigh. For the rest, it is every where very decent and modest. The Annamites allow their hair to grow; they roll it up and fasten it with a comb on the top of the head. The men as well as the women ordinarily wear a handkerchief or a

kind of turban on the head. In journeying, and when they expose themselves to the rain or the sun, they have a large hat, made of long leaves, which serves them for umbrella and parasol. All go with naked feet, without stockings and without shoes: Mandarins sometimes wear sandals in their houses: The sabots in use in the country are so inconvenient a covering for the feet that they can only serve to walk a few paces.

MANNERS AND CUSTOMS.

I will not enter into much detail on the manners and customs of the country; this would carry me too far. I will content myself with saying that the Cochin Chinese have inclination and aptitude for trade, and that the situation of the country, the coasts of which are watered by the sea to so large an extent, with its numerous Ports, much facilitates the intercourse with foreigners. But it is to be regretted that despotism, under which this people are crushed, does not allow them to give themselves up to commercial affairs on any large scale. The king aims at monopolizing trade with foreigners, and his subjects have not the right of building vessels: they are only permitted to have small boats unfit to proceed far. They seldom leave the coasts of Cochin China, and if some go to Singapore or Macao, they do so surreptitiously and with little gain.

Rice and every description of Food, is cheap in Cochin China. One can easily live on five or six dollars monthly. The natives seldom spend one. The meridional part being, as I have said, the more productive, money is also more common in it, and food dearer. Servants too are on low wages: the highest pay is six dollars a year. Labourers or workmen are hired at one dollar per month, or four cents a day: this is the highest price. The further you go to the Northwards, the price of food and the salary of servants progressively diminish: because there is less trade and affluence.

HOUSES AND FOOD.

Architecture is yet, in this unfortunate country, very rude in its elements. The walls of houses do not ordinarily consist of any thing else than some branches interlaced, and sometime plastered with clay, and more often with mud or even cowdung. In Lower

Cochin China the roof is commonly covered with leaves; in the other provinces they cover it with rice straw, or with a kind of long grass called *Tranh*. Many houses are almost entirely made with bambú and some other woods. In some parts they are built upon piles. The public edifices are covered with tiles, and have thick walls of brick.

Little furniture is found in these houses, and few household utensils. Some pots, some cups, two or three mats, bits of wood, some porcelain spoons, and that is all.

Rice forms the most essential part of their food, the same as in China; they could not make a single meal without rice. They most often eat it with a bad ragout of fish, pungent beans, and a water of very salt fish which they call *nuóc mam*. At great dinners their table is furnished with the flesh of pigs or other animals, amongst which ought to be comprehended dogs, foxes, and frogs. They ordinarily make three meals a day, always with rice. Breakfast they call the morning rice; dinner the noon rice, and supper the evening rice. The rich drink tea from China, and the poor the tea of the country. They have a kind of wine made from rice or millet which we call arrack, and which is nearly as strong as our brandy. There are vines which grow spontaneously on the mountains, but the grape is very acid, and will not do to make wine. They sit, with the legs crossed, four or five persons round a circular table, and thus eat, each holding a bowl of rice in his hand. The women never eat at the same table with the men.

CONDITION OF THE WOMEN.

As in many other Asiatic countries, the women in Cochin China are in a state of the most abject degradation. The rich regard them as destined to serve as the instruments of their pleasure, and the poor of their wants. For this reason they are devoted to offices which require the greatest bodily fatigue, and are subjected to such a submission to the lords of creation that they cannot have a will of their own. The labours of the fields are ordinarily their portion. They guide the plough, and handle the spade and mattock; from morning to evening they wade in the water transplanting rice. They carry provisions to market. They

cultivate and they manufacture the cotton and silk for the use of their families. They often take the principal part in commercial affairs. The Cochin Chinese women, however, more fortunate than those of China, do not submit their feet to torture in order to make them small and pretty. They have also sufficient liberty of motion, and of communication with strangers; their habitual innocence leaves no room for the jealousy of their husbands. But these remarks only apply to the lower class of people; for all mandarins, as well as the king, and those of his family, imprison, so to say, their wives and their concubines, and exercise over them, as over all their inferiors, the most absolute authority. Concubines are slightly subordinate to legitimate wives, but real harmony rarely reigns between them.

ARTS AND SCIENCES.

The Cochin Chinese have little knowledge of painting and sculpture. Some amongst them, however, shew talent and facility in the acquisition of Arts; but they have no school for teaching them; and men of natural talent are discouraged by the prospect of being employed in working almost gratuitously for the king, if they give proof of ability. They have made some progress in music and the comic art; that is to say, they play some instruments and some comedies which please them; but this music and these dramas would be far from agreeable to the taste of a European. In agriculture and architecture they are inferior to the Chinese. They work metals with a passable skill and neatness. They do not at all know how to manufacture porcelain; they buy that of China. It is in the building of ships that they have attained the greatest perfection. They have vessels which are made in a masterly manner with osier, and plastered with a paste made of diluted mud and sea shells. But ordinarily, their vessels are constructed with five planks joined together without any kind of carpenter's work; they make them take the requisite form by exposing them to fire. They are attached to each other by pegs of wood and united by four hoops of bambú, after which they are plastered with oil and bitumen. Two eyes are painted at the bows of their ships and vessels, to denote the vigilance which ought to characterize those who guide them. They are remarkable for their power of resisting the shock and the violence of waves, as also for going close before the wind, and for quick sailing.

(To be Continued.)

SOME CONTRIBUTIONS TO THE NATURAL HISTORY OF THE RAFFLESIA PATMA.*

By the HEER ZOLLINGER, M. Bat. Soc., &c.

THIS flower, which still continues a problem in botany, and a rarity in the collections of botanists, appears not to be so scarce as has hitherto been believed. I know that it occurs on the south coast of Java on the hills near the boundaries of the Residencies of Passarúwan and Bezúkie; I found it also on the mountain Watargan near Puger on the south coast of the division of Bondowosso. The flower was brought to me from Jengawar in the same division. All these places lie in the lime formation, and I consider that the *Rafflesia* is an exanthem of the roots of *Cissus Scariosa* Bl., and may occur wherever its mother plant grows. It is still uncertain whether my specimens belong to the species which Blume found on Nusa Kambangan. Blume's specimens must have been larger. The largest I possess do not attain so much as a foot in diameter, and mostly only $\frac{1}{2}$ — $\frac{3}{4}$ f. This plant probably occurs also on Nusa Baron and, it is likely, along the lime hills which nearly surround the whole south coast of Java. I have often seen on one root of *Cissus scariosa* three or more *Rafflesia*. It does not occur on the sand of the coast as many believe and assert, but mostly in the ravines and humid hollows of the lime rocks. The Javanese of Eastern Java name this flower *Pidh mo* or *Pidehmó*. It is scarcely possible to conceive what idolatrous notions are entertained concerning the flower by this people. An ordinary man would not be able to find it until after he has fasted and prayed, or been sanctified when he goes to search for it. The flower is prepared with other articles as a medicine which is used after delivery by women, in order completely to purify the matrix. It is also amongst the most reputed aphrodisiacs of the Javanese, although only for women of the higher classes. Common women would be taken sick were they to use this medicine. It is further said that if a woman of the people has recourse to it, and afterwards going out on foot treads on some dirty place, she will ever after forfeit the inclination

* Translated for this Journal from the *Natuur-en Geneeskundig Archief voor Nederlands Indië*.

of all men. The Javanese reckon the *Rafflesia* properly amongst the fungi, an opinion which is partly received in science, at least in so far, that we have placed the plant in the natural system as a link between the sponges and the higher plants.

A GLANCE AT RHÍO.

By J. T. THOMSON, Esq.,

M. Newcastle Nat. Hist. Socy., Surveyor to Government.

WE left Singapore in the H. C. Steamer *Hooghley* for the neighbouring Dutch town of Rhío, (we call it neighbouring, in this part of the world, tho' distant 50 miles), on the morning of the 1st. inst., (July). Daybreak found us off the Pan Shoal,—a large coral reef situated in the centre of the channel, and a stumbling block to mariners,—there being no good land marks or transit bearings for clearing it, nor beacon to denote its position. As the morning advanced, we found continually disclosed to view the numerous bushy Islands which bestud the calm waters of the Strait, until, at noon, we anchored off the small Island of Piningat which fronts the settlement and fort of Rhío.

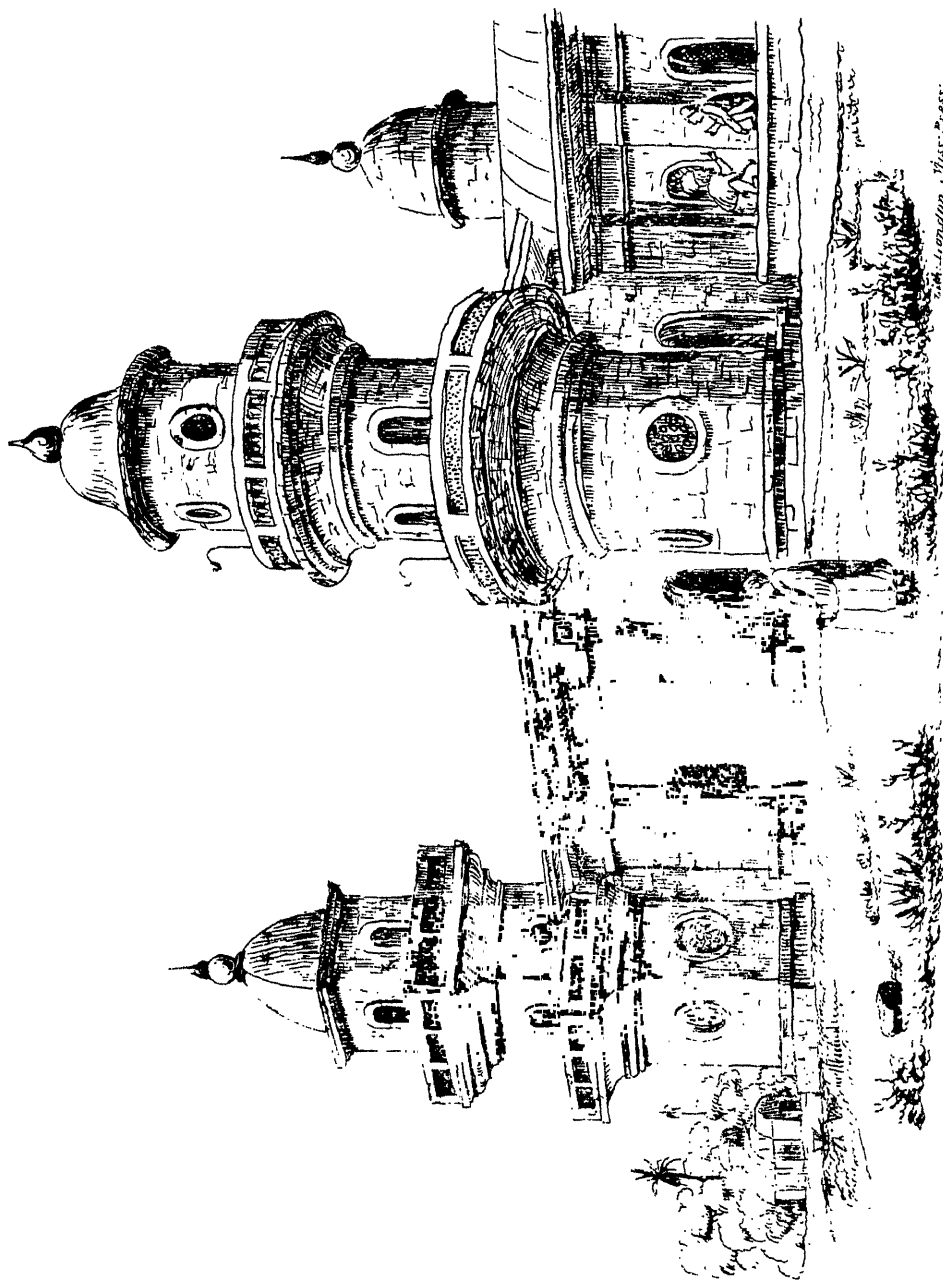
From the anchorage we could not help admiring the neat appearance of the town and its vicinity, with the well built fort crowning a grassy eminence, the white walls of which, standing out from the surrounding verdure, helped to give variety to the picturesque scenery. The town of Rhío does not stand on the Island of Bintáng, but on a small island adjoining it called Pulo Pínáng, from which it is divided by a narrow strait. It is to the produce of the large island that Rhío owes its importance, having been long known for its gambier and pepper cultivation. The island of Bintáng, lying on the high road between India and China, seems to have been of early importance, affording excellent harbours and shelter from the storms of the China Sea in the North East monsoon; and we find Marco Polo, in his celebrated travels, mentioning it under the name of Bentan, while Singapore is passed unnoticed. The shape of Bintáng is not, as its name would denote, that of a star, though the untutored Malayan voyager, who could only view its shores in detail, might be led to fancy such a resemblance in the numerous long points and capes which radiate from the body of the island. The shape is more a crescent, whose convex side stems the waves of the China Sea, and in the concave side of which the calm harbours already noticed are formed.

On landing at the wooden jetty, we found the European town

hidden from view by groves of fruit trees, and were only convinced that we were in it, when, on stepping ashore, we found ourselves in front of the public offices. To a Singaporean the change is striking. In five hours from an English town, surrounded by every thing as nearly English as the climate will allow, and where English customs and manners prevail, you step into a place where every thing appears strange and foreign. 'Twas midday, but nothing was stirring. Every thing was death-like in comparison with our own busy Commercial Square. The Dutch Sepoy, with his conical long peaked hat, lounging in front, when asked if mynheer was in office, responded with a yawning *Tráááá*, which spoke volumes. He and all had retired to their siestá. We took the opportunity of looking about us. The town, small as it is, we found to be laid out with a truly Dutch neatness and regularity. The houses of the Europeans, embowered in groves of oranges, mangosteens and other tropical fruit trees, imparted a cheerfulness to the otherwise dull and lonely settlement. The Residency House is a handsome building whose facade is ornamented with bold pediments supported by coupled columns of the Roman Doric. It was only a subject of regret to us that a building, which would so much add to the beauty of the place, is hidden entirely from the principal approach to the settlement by closely planted trees. The fort on the hill, commanding the town, is approached by a drawbridge thrown over a dry moat that surrounds the works. The plan is square, with bastions at each corner. It was built from the remnants of the immense fort which protected Malacca, the stones having been brought in ships from that place during its brief occupation by the Dutch prior to 1824.

After paying our respects to the Resident and his Assistant, we sallied forth to view the Chinese and native part of the town. In proceeding, we passed the chapel, a small building, nearly a facsimile in miniature of the Protestant church of Malacca, whose style is that which used to prevail in Holland and some parts of England 200 years ago. The Chinese town is built on each side of a semi-circular street, and presents a considerable contrast to the European. The same attention does not seem to be bestowed on the cleanliness of the thoroughfares as in Singapore, the drains being full of filth, with the usual accompaniments of swine, ducks and geese luxuriating to their hearts' content. It had been generally reported

hat the Chinese of Rhio were more respectful and less surly to Europeans than those of Singapore,—but our observation did not confirm this as no difference could be noted, nor had they the same idle inquisitiveness of this class in Malacca as might have been expected in a small town. Gambling is allowed, and, we were informed, farmed out by the Government. The gambling shops were all adjoining and open to the street. They could not fail to excite our curiosity, seeing how vigorous the Singapore Police are in rooting out the evil in the British Settlement. The shops seemed generally to be but thinly attended, but there was sufficient to convince the observer of the ill effects which this propensity entails on the Chinese. The gamblers consisted of the debauched opium smokers and the leprous, whose wan countenances, lighted up now and then by intense anxiety as to the result of their venture, were only to be contrasted by the forlorn and reckless looks of others. This picture might be thought overdrawn perhaps, were it not mentioned that all Chinese are strongly addicted to this vice, so much so indeed that it is their ruling passion, and persons of all classes attend the gambling table. The miserable appearance of those who are seen there would mark them as ruined and the dregs of the population, who, useless for other employment during the day, idled until night brings about its usual revels, and company. There has been much diversity of opinion regarding the propriety of the government deriving a revenue from this source, and, without expressing an opinion, it will suffice to note the arguments on both sides. First, say the opposers, government by sanctioning gambling lend their support and countenance in maintaining the vice, thus ruining their subjects for revenueal purposes,—keeping an open door for the ruin of the young and uninitiated,—and causing a general demoralization of the people. The advocates of the farm, on the other hand, say, government by taxing gambling directly discountenances the vice, in the same way as it does by taxing opium smoking and spirit drinking, and instead of having a shut door where the addicted may pursue their vices beyond the pale of public opinion it would force them to attend the farmers tables openly, which those only who had no regard for character would do; a policy which particularly recommends itself in such places as Singapore and Rhio, with a migratory, shifting and mixed population, where, if any good is



HATDJEH N'OMEN'S MOSQUE. PULO PENINGAT.

from London. Press.

effected at one time it is lost when the places of those who may be ameliorated are supplied by others having all their native vices about them, and where the total suppression of gambling will always remain an engine for corrupting the Police.

We took leave of Rhío at 3 P. M., and paid a visit to Pulo Pin-ingat, or Pinigat as Begbie has it, in the evening. This island possesses a considerable population, and is of some note in the Malayan Annals of Johore. It contains the palace of the Rájá Múdá, one of the officers of the former court of Johore; and it was here that the regalia attached to the sovereignty of that once powerful kingdom and now in possession of the Sultan of Lingin, were deposited. The possession of these relics was considered of much importance to the British interests previous to our treaty with the Dutch in 1821, but they fell into the hands of that nation, whose Commissioner, it is related by Capt. Begbie, wrested these insignia of royalty from their keeper, Túankú Pútrí, in 1823 to bestow them on the chief who sided with them. The first object of interest that attracts the eye is a new fort which the Raja is building for protection against the Illánúns, as we were informed by his gunner, who conducted us over the place, not contented until we had seen every thing, and who was very careful to impress on our attention its similarity to the fort of Rhío. It is a harmless way of spending money at all events, as it is flanked by a higher hill on one side and another of equal height on the other. Beneath the fort stands the Raja's Palace or rather house, and, close adjoining, a remarkable mosque which is being built by a Chinese convert to Mahomedanism, called Hájí Momen. The plan is said to be the same as one at Mecca. The Raja was busy celebrating the nuptials of his son, and on advancing into the enclosed court, we found several thousands of Malays and Chinese assembled, creating as much sound, discord, and music, on various instruments, as can be well imagined.

In the centre of the Court hung a large bell. To the north was placed a balei or audience chamber, and, near the south, what was taken to be the house of the Raja. From the audience chamber to the house there extended a double line of natives dressed uniformly and carrying a musket each. Others were in the Malay garb, carrying spears adorned with red hair, called tombas. The balei was crowded with people. After the ceremonies were over, the bride-

groom, a boy of 14 dressed richly for a Malay, was carried on mens shoulders to the house, accompanied by the principal people attached to the Raja. On passing he was saluted by the quasi soldiers *a la militaire*. Next came the bride enclosed in scarlet curtains held extended by a frame, and excluding her from view. Immediately followed what we inferred to be matrons of noble blood, whose handsome appearance, fair complexions and peculiar gait, betokened them to be inmates of the Rajah's harem. Then came groups of all sorts of ladies, young and old, black, brown and yellow, to the number of at least six or seven hundred. This stream of femininity poured from the audience chamber and filled the dwelling house, where no more could be seen of them. Now commenced the roar of cannon created by our friend the gunner on the hill. The imitation soldiers formed into a circle with great gravity, and, led on by an ugly drummer and fifer with conical glazed hats and long peaks, they commenced a slow march round and round. Their native leader was now discovered amongst the motely crew, bearing in his hand a staff of authority, and though bare footed wearing a cap with a gold band, military frock coat, and dirty white trousers. First he heads his gallant band with staff erect and toes well pointed; now he breaks off into the centre to admire the intoxicating whirl; then advances the Panglímá práng taking a crease from under his sarrong, with which he describes a small concentric circle round and round, keeping time in short step with his troops, until well tired of the amusement, when he stops on a sudden, throws up his crease in the air, catches it by the hilt halts his bare footed monsters, and marches them off the ground with great eclat. The din of gongs next commenced and the screeching of Chinese wyangs, the busy hum of which was long heard after leaving the scene.

These Malays all wear their creases by their sides as in independent states, and their women display the same shyness of strangers as in other Mahomedan countries, running away at your approach, but at the same time displaying, notwithstanding their sham modesty, that species of coquetry so well described by Scott of the two maids on Waverley's approach to the House of Tully Veolan. At dusk we reached the Steamer, tolerably well satisfied with our six hours visit to Rhío.

Although it may appear out of place in a description of this kind to touch on the physical nature of the Islands and vicinity, still, having examined a considerable part of them on previous occasions, we will give a slight sketch before concluding. The Island of Bintang has been visited on various parts between its eastern and most western points along its northern shore, as well as in the vicinity of the town of Rhio, and, geologically considered, it may be said to present a continuation of the features that prevail on the southern part of the Malayan Peninsula. The same iron stone or laterite covering is to be met with, spread over the surface of the country in a greater or less degree, as is seen in Malacca and Singapore,—at some places the laterite diminishing to a thin stratum of gravel, three or four feet beneath the upper soil, and at others protruding itself and spreading out on the surface, in blocks and stones. Along the northern shores from Blalah Bay to Pulo Panjang the formation was observed to be of granite, of coarse grain containing little mica. In many places the blocks are of enormous size, and rear themselves up in fantastic shapes out of the sea, on the shores, in the vicinity of Round Island and Pulo Panjang. On the western extremity of this latter Island an immense pyramidal rock rises out of the sea, towering to what we guessed to be about 150 feet from the surface of the ocean, while others we observed to have a columnar structure resting on a small base. On the Eastern point of Bintang, the rocks take a stratified appearance, and it is difficult to decide for want of sections whether they are of plutonic or sedimentary origin. This rock again protudes from the bottom of the sea at a distance from the shore with a strike N. W. and S. E. and dip nearly perpendicular, rising within 10 feet of the surface of the water and forming the dangerous reef called the Postillon's Shoal, a cause of destruction to several English ships until laid down by a Dutch man of war of that name. This rock is clearly visible from the surface in clear and calm days. While the northern part of the Island is all of granite rocks, the centre where Rhio is situated, is composed of shales of different degrees of induration, their strata being much tilted up and devoid of regularity. They appear to be nonfossiliferous as far as has been observed, so claim little attention from the Geologist, but they contain quarries of clay slate,

that are used in buildings for flags to be laid in flooring &c.

The island of Bintang as noted before contains many projecting head lands between which are frequently deep bays and wide creeks, and there being no large rivers to deposit their alluvium, we find that what otherwise would long ago have formed into valleys are still claimed by the waters of the sea. Some of those bays nearly divided the Island, and one we noticed on our approach to the Harbour of Rhio, penetrated its wide surface as far as Large Bintang hill, whose wooded slopes rose abruptly from the edge of the waters. The surface of the country is generally low, and can seldom exceed 80 to 100 feet in height, as is the case with Singapore and a great part of the territory of Johore, and those elevations that become conspicuous are isolated. The highest of those is Large Bintang Hill, about 1200 feet in height.

The soil as far as observed was found to be poor, being a reddish clay immixed with vegetable matter, and unfit for any general cultivation excepting Gambier and Pepper. The production of these articles of commerce we were informed has been considerably curtailed, owing to the plants and vines being worn out in the older cultivated districts; and the Chinese who are the cultivators have consequently in great numbers abandoned the soil for fresh locations in Battam and Johore.

CONTRIBUTIONS TO THE STATISTICS OF THE POPULATION OF JAVA.*

By P. BLEEKER, *Sec. Bat. Soc. ; Netherlands Indian Med. Service.*

GENERAL STATE OF THE POPULATION OF THE RESIDENCIES OF JAVA.

RESIDENCIES AND ASS. RESIDENCIES.	Surface in English Square miles.	Europeans.	Chinese.	Natives.	Arabs, Bugis, &c.	Military as consti- tuted in 1846.	Slaves.
<i>Bantam</i> ,	2560	360	813	392887	430		29
<i>Batavia</i> ,	663	3478	31764	242927	598		2376
<i>Buitenzorg</i> ,	1064	662	7462	252015	0		172
<i>Krawang</i> ,	1538	100	1843	128705	74		30
<i>Preang. Regentschapp</i> ,	6077	168	202	727154	305		20
<i>Cheribon</i> ,	2042	624	8814	606209	817		59
<i>Tagal</i> ,	850	274	788	292934	2820		58
<i>Banjoemaas</i> ,	1589	150	1640	403852	0		12
<i>Pekalongan</i>	466	312	2353	232226	564		84
<i>Bagelen</i> ,	923	217	1417	612027	89		14
<i>Samarang</i> ,	1423	2883	9657	739098	2277		582
<i>Kadoe</i> ,	631	174	2484	354377	73		3
<i>Djorjoearta</i> ,	926	664	1063	345696	55		47
<i>Soerakarta</i> ,	1803	900	2000	500000	1200		67
<i>Japara</i> ,	672	396	6606	413540	742		130
<i>Madioen</i> ,	1580	113	1059	312975	102		18
<i>Patjilan</i> ,	773	30	100	89077	0		9
<i>Rembang</i> ,	1983	459	9002	467766	1461		148
<i>Kedirie</i> ,	2054	94	1661	232467	0		5
<i>Soerabaija</i> ,	2029	2736	5111	923687	4427		907
<i>Eiland Madura</i> ,	1557	368	6544	280314	8522		
<i>Possoeroean</i> ,	1784	578	2229	331981	1163		288
<i>Bezoekie</i> ,	4126	530	1373	497106	3678		53
Total,	39113	16270	105983	9373989	29397	11295	5111
Grand Total, 9,542,045							

Translated for this Journal from the *Tijdschrift voor Nederlands Indië*.

The preceeding table has been compiled from the newest census of the different residencies, to which access has been kindly given in the course of my journey through Java in 1846. Most of the lists contain the numbers of the census of 1845. That of the Residency of Bage'en only is for 1843. The accuracy of the numbers is judged differently by the local authorities of the different residencies. Generally it may be considered that in none of the residencies are the numbers stated too high. In many they are certainly too low. The population of the Residency of Bagelen, no census of which has been taken during the last three years, may certainly now be reckoned to amount to 700,000. There does not exist any regular statement of the census of the Residency of Surakarta, but it may be foretold, that the improvements in the internal government of this populous residency planned and already partly put in operation, will speedily admit of a census, the result of which will probably be a figure of more than 800,000 souls. This I know respecting one of the greatest residencies of Java, that an exact nominal census of some districts gave a number nearly one half higher than the figure of the negligent reckoning of the year before. We may confidently believe that at present the true number of the population of Java exceeds 10,000,000.—About 30 years ago the number, according to Raffles, was scarcely 4,605,270, and thus not one half of the present. It is scarcely necessary to mention here, that the inhabitants of the Western residencies of Java are for the greater part Sundanese, those of middle Java proper Javanese, those of the Eastern residencies for the greater part Madurese. The military are partly European, partly Africans, partly Javanese, Madurese and Bugis. In the residencies of Batavia, Samarang, Bagelen, Djocjocarta, Madioen and Surabaya are the strongest garrisons. In the assistant residencies of Tagal, Pekalongan, Japara and Rembang, there are no troops. The particular statements of the population of the different residencies will be inserted in following numbers of the *Tijdschrift*.

MISCELLANEOUS NOTICES, CONTRIBUTIONS, AND
CORRESPONDENCE.

Earthquakes in Java.

Earthquake at Banjoemas.

ON the evening of Saturday the 20th of March, about $\frac{1}{2}$ past 7 o'clock, a brief but rather strong shaking of the earth was felt at the capital of the residency of Banjumas. It was remarked that on the same day, particularly in the afternoon, unusually large columns of smoke ascended from the crater of Slamet (on the mount Tagal.)*

Earthquake in the district of Modjo redjo.

On the 21st March and 3d April, violent hurricanes accompanied by heavy rains and light earthquake shocks, occasioned damage in the district of Modjo-redjo, division Modjo-kerto. A number of large trees were torn out of the ground, and more than a hundred houses, pondoppoos, and paddy-granaries were blown over. Two men were wounded by trees falling, and one of them died in consequence.†

The Tin Mines of Malacca.

Extract of a letter from T. NEUBRONNER, Esq., to the Editor.

THE constantly increasing productiveness of the Malacca Tin Mines renders them a matter of considerable interest. Many of the principal miners have retired with competencies to their native country (China). There are now about 50 mines, and some have been opened near the abode of the Jakuns, who, instead of shewing any hostile feelings, have been of essential service to the miners by guiding them through the impervious jungle to the streams and places where it is supposed the metal will be found in abundance. It is much to be regretted that so much specie is annually taken out of the settlement by the Chinese for transmission to their families in China. They are, after all, in one sense, unprofitable colonists; and I am glad to observe that a spirit of

emulation is beginning to shew itself amongst the Malays, as a company of them, I hear, have been formed to work the mines.

Gutta Percha.

DR. D'ALMEIDA has sent us the following memorandum with reference to the mention made of him in connection with this product, *ante*, p. 22.

Dr. d'Almeida left Singapore for Calcutta in the latter end of November 1842,—arrived at Calcutta in the end of December of the same year,—left Calcutta in the middle of January 1843 by the Steamer "*Hindoostan*", and arrived at Southampton about the end of March. A few days before leaving Singapore he bought from the natives some whips made of the Gutta Perchá, some of the prepared substance, and some of it in its primitive state; this specimen being presented for the first time for sale at Singapore. During Dr. d'Almeida's passage to England, he gave a piece of this specimen to Mr. Charles Carnie, then a passenger in the same Steamer, who, although a resident of Singapore, was unacquainted with this product. In London Dr. d'A. gave a portion of the specimens to Mr. W. C. Crane to be analyzed; and, about the end of April 1843, presented the remainder to the Royal Asiatic Society. A letter of acknowledgment from the Secretary was transmitted to Dr. d'Almeida, which he received at Southampton in the beginning of May of the above year on his return from Paris. The same substance was shown in London to Mr. A. A. Lackersteen before it was delivered to the Royal Asiatic Society.

Specimens of Coal from Labuan, Pulo Chirmin, Borneo, and Formosa.

WE are indebted to the Hon'ble T. CHURCH, Esq., Resident Councillor at Singapore, for some specimens of coal from the above localities procured from T. W. RIMELL, Esq. Asst. Surgeon, H. M. S. *Royalist*. As we shall shortly have to recur to the subject, in taking a general view of the coal of the Archipelago, we here merely note some of the appearances presented on a first partial examination.

1. A specimen from the N. E. point of Lábuán, where the beds dip at an angle of about 25° to the N. E. and have consequently the general range of the Southern Asiatic Peninsulas NW.

—SE. Dr. Rimell states that these beds can easily be worked and are situated about 450 yards from the sea side. We may mention that the H. C. S. *Nemesis*, Capt. Wallage, on her last voyage from Borneo to Singapore, when she did such good service against a fleet of Lánún Pirates, used Lábuan coal, which burned remarkably well; and was considered, Mr. Brooke mentioned to us, to resemble cannel coal.

Principal fracture, imperfectly foliated fibrous; lustre, glimmering resinous like that of cannel coal; numerous minute, mostly round, pyritous specs adhering. Cross fracture, large, imperfect conchoidal; lustre resinous, remarkably splendent, semi-metallic; In some places thin layers or zones, irregular in size and distribution, nearly perpendicular to principal fracture,—fracture in plane of zone irregular, uneven, dull,—cross fracture uneven, lustre duller than body of specimen.

Moderately hard and tough.

Small fragments burn slowly in weak flame of spirit lamp with a large yellowish and yellowish white flame, no jets, occasional slight decrepitation, intumescence slight; removed from lamp flicker and die out quickly.

33 grains gave 19. 75 grs. of charcoal or cinder, which, on incineration in platinum foil until every particle of carbonaceous matter disappeared, left . 40 gr. of a reddish yellow or dull orange ash—the reddish tinge being probably derived from the iron in the pyrites

Volatile matter 40. 15.

Charcoal, 58. 64.

Ash, 1. 21.

100.

A second fragment of 43 grs. gave 25 grs. or 58 per Cent. of charcoal (including ash.)

Powder, blackish brown.

Specific gravity 1. 28.

2. A specimen from Púlo Chirmín, at the entrance of Brúní river. Structure more compact and uniform than No. 1. and fracture in all directions larger and more even. Regular cleavage planes,

fine fibrous woody structure. Lustre dull resinous approaching that of some varieties of lignite.

Burns like No. 1.

34. 50 grs. gave 17 grs. of charcoal (including ash) = 49.02 per cent.; another fragment of 18. grs. gave 8.75 grs. of charcoal = 48.61 per cent.

Powder, brown.

Spec. grav. 1.28.

3. Specimen from mainland of Borneo about 20 miles from Labuan. Intermediate between 1 and 2 but approaching nearer to 2 in fracture, and lustre.

Burns more readily and with a larger flame than 1 and 2.

Spec. grav. 1.28.

4. Specimen from the N. Point of the island of Formosa, where the coal can easily be worked and shipped, and is put on board vessels calling at *Kelong* at 5 per ton, by the inhabitants.

Structure very irregular in comparison with 1, 2, and 3. uneven, devoid of compactness in the mass, readily broken in all directions and somewhat crumbling, in some places smooth and in others finely fibrous. Lustre duller than 2.

Burns more readily, and rapidly, and with a larger flame than 1, 2, and 3, with bright but not strong jets and intumescence.

34 grs. gave .85 = 2.74 per cent. of ash, grey with a very slight brownish tinge. 15.25 grs. gave 7.75 of charcoal (including ash) or 50.8 per cent.

Powder, brown, gives a streak on paper.

Spec. grav. 1.27.

5. Specimen of sandstone between two laminae of coal, abundantly seen on the N. E. Point of Lábuan.

* * N. B. The above are merely given as results from fragments of single specimens, and not as the average characters of the coal in the different localities.

Rock specimens from Pulo Ladda, Pulo Lankawi and the Mainland between Kidah and Junk- ceylon.

The kindness of Captain CONGALTON, Commander of the H. C. S. *Hooghly*, has supplied us with some fine specimens of rocks from

Púlo Láddá, Púlo Lankáwí and the mainland between Kidáh, and Junkceylon, where the *Hooghly* recently proceeded in search of coal. As a gentleman who, amongst his many other distinguished researches, has done good service to Geology, and whom we may congratulate our readers on being able to number amongst our ablest coadjutors,—Lieutenant Colonel Low,—is zealously investigating the Geology of that portion of the Peninsula, we abstain from making any remarks on these rocks for the present.

Gold from Pankallang Bukit, and Gold and Tin from Gongong on the Johore River.

We lately received some specimens of Gold from H. H. SULTAN ALLI ISKANDER SHAH, and some others, with specimens of Tin, from the Hon'ble T. CHURCH Esq., which had been furnished by H. H. the TAMUNGONG of Johore. They are all of excellent quality and from Limbongans or pits which have been recently opened. The first is from a Limbongan made in the alluvial soil at the foot of a hill and near a small stream at Pankallang Búkit, which is about 4 hours (Malayan reckoning) inland from Tánjong Gádíng, a Point between the mouths of the rivers Muár and Kissáng in the north of Johore; the last are from Gongong on the Johore River in the south of that kingdom, and are fresh proofs how widely spread these valuable metals are throughout the country.

Case of Poisoning by Mushrooms.

As cases of this kind seldom occur, they are interesting from their novelty, and as the Mushroom is in common use by many natives, and even Europeans, the narration of a recent occurrence of the kind may not be without use. On Saturday the 18th. ult., two persons, a Bugis man and a Balinese woman, partook of a stew composed of Mushrooms which had been gathered in the morning by a Caffre woman who makes a practice of doing so. The Malay name of the Mushroom in question is Chandáwan lilin. It of a bright sulphur colour, becoming paler and more watery round the edge of the cap, which is smooth, turned down, and of a waxy-hue. It is about one inch long, in its long diameter, ovoid in its shape, and nodulose in its upper surface, but smooth. Cells parallel, laminæ of three different sizes. Stem about one inch and a half long, smooth, no veil. Hab: attached to trees, taste mushroom like, but not bitter or astringent. According to London's description, it approaches the

class agaricinæ, div. Pileati; but its individual characters belong to none of the species described by him. About 12 o'clock noon the meal was taken, and about one both were seized with a pain in the head. (The man in the back part of the head). Then giddiness came on, and when they attempted to walk, they tottered and fell groaning and moaning and talking incoherently. The woman who eat fewer of the Mushrooms had an inclination to vomit but could not, and although she groaned and moaned much when ill, yet on her recovery she did not recollect any thing of what had happened during that time although she had been continually raving of green hills and mountains falling while at times she would be pathetic. The man who was strong, stout, and muscular in appearance, when seen about 8 P. M. or 7 hours after having been attacked, was found to have his pulse natural, though small, skin cool and moist, eyes red and suffused. He complained of great weakness, and when he attempted to rise fell, all the time being incoherent. At one time he talked of his business, then complained of great weakness, with a sensation of pain in the stomach and heat in the gullet. He had no pain in any other part at the time, though he said he was giddy and his head heavy, nor was he convulsed. He was given 60 grains of Sulphate of Zinc and 2 grains of Tartar Emetic for a dose, which produced profuse vomiting, after which, he had brandy and water hot, under which treatment he rapidly convalesced and only complained of slight fever for a day or two following,—perhaps to be attributed to the brandy and water. The female had a strong Emetic administered to her but without effect, and without any thing else than a dose of sugar and water (the Malayan prescription in such cases) she recovered, and, next day found herself only weak, with head rather confused, and a total loss of memory as to what had passed.

In this case of poisoning two or three things may be remarked. 1st the acrid narcotic effects of the fungi, and the celerity in the appearance of the symptoms. 2d. The deadening effect on the stomach of the female by which the effects of the emetic were counteracted,—3rd. The fact that by stewing the poisonous properties are not dissipated, while if they had been boiled and the water thrown away, according to the Malays no bad effects would have ensued; and, lastly, that altho' intensely yellow in colour yet were they mistaken for edible ones of a white tint, those of the former colour being known to be poisonous.

THE
JOURNAL
OF
THE INDIAN ARCHIPELAGO
AND
EASTERN ASIA.

**NOTES ON THE GEOLOGICAL FEATURES OF SINGAPORE
AND SOME OF THE ISLANDS ADJACENT.**

By Lieut. Colonel LOW, C. M. R. A. S. & M. A. S. C.

I **SUBMIT** my imperfect notes to the public in the hope that they may prove of some utility to any scientific and more practised geologists than myself who may wish to examine the Island. I cannot here avoid adverting to an observation made by one of the greatest geologists of the day, Sir R. Murchison, while adverting to a paper on the geology of Pinang by the late Dr. Ward, and to which he was, I suppose, led by that writer. He remarks, "Although we may regret that the Malayan Archipelago offers no other than primary rocks, here and there covered with their disintegrated materials, we must hold up as highly worthy of imitation that good spirit which prompted the Resident, Mr. Kenneth Murchison, to take all the means at his disposal to obtain for us this amount of natural knowledge,—as it is obvious that similar efforts on the part of the chief officers in any distant colonies would prove of inappreciable value."* I think it probable that it will hereafter appear that the above restriction has been overhastily made, and that little has yet been done by English Geologists in the countries lying East

* Address by R. I. Murchison, Esq., to the anniversary meeting of the Geol. Soc. 15th Feby. 1833, page 22.

of Bengal, although I believe the Dutch have been honorably prominent within the scope of their authority and rule.

Singapore Island consists of a number of low hills and ridges with narrow and rather swampy flats intervening. In several places the sea face is elevated, but the greater portion of the circumference is fringed by a pretty deep belt of mangrove forest.

With the exception of Bukit Timáh, which is a granite formation, the whole Island, as far as I have been able to discover, is composed of sandstones. Bukit Timáh has an elevation of about 530 feet. It lies to the westward and is removed about $2\frac{1}{2}$ miles from the centre of the Island. If this mass of granite was forced upwards through the overlying strata of sandstone, they would naturally be found reclining against it. But I was not able to discover this result of internal action.

If there be no inclined strata of this description, the sandstones may have been deposited subsequently to the eruption of the granite, and then been heaved up into their present inclined position.

The soil overlying this granite is rather a meagre one, owing, I suppose, to this rock being neither very porphyritic nor micaceous,—differing, in these respects, from the granite of Prince of Wales' Island. Its quartz and felspar are pretty closely blended, and on this account it is less liable to decomposition than the granite of the latter Island. Generally, the felspar and quartz, where not being decomposed, are both either white or of a lightish grey colour, and the mica, which is rather abundant, is black and lamellar.

In several places on the ascent of the hill, this rock has the appearance of being stratified,—and perhaps it may be in, or approximating to, that transition state which may exist betwixt the new granite, and its cognate primary rocks, gneiss and sienite.

Where this appearance of stratification was observed by me, the rock was very compact and of a greenish colour, and occasionally approached to quartz rock.

I examined this granite of Bukit Timáh carefully, although not *chemically*, and found it to contain 18 per cent. of Silica or quartz,—the remainder, according to the common average existing in granite, may perhaps be taken at 62 of felspar and 20 of mica.

Adverting to the nature of these two last ingredients, the overlying soil of Búkit Tímáh most probably consists of about

Silex	65.
Alumina	21.
Lime	1. 90
Potash	10. 20
Iron	2. 90

I do not include vegetable matter. The specimens of Búkit Tímáh granite are

1. Quartz and felspar in excess—mica hardly discernible.
2. Do. Do. very quartzose.
3. Very light grey colored,—quartz and felspar redundant,—small specs of black mica.
4. Still lighter coloured and with paucity of mica.
5. Coarse grained and quartzose.
6. Veins of a light coloured and hard quartzose rock, tinged yellowish red by oxide of iron. Brown iron films betwixt the cleavages,—these last being cross, that is across the vein.
7. The stratum above and next to the rock, where examined, was an angular quartzose gravel and red clay.

8. Granite with a pretty equal proportion of its three ingredients.

On the right side of the southern Búkit Tímáh road, and close to it, just where it surmounts Scott's Hill, stands or lies a detached block of dark, and rather compact, granite, resembling the darkest granite of Búkit Tímáh.

This last hill is about 5 miles distant from Búkit Tímáh, and a long and almost level valley stretches the whole way betwixt the latter and the rising ground on the top of which the block lies. I could find no indication that this block is connected with any primary rock beneath,—all around, and, apparently, below, being sandstones and clays. If, therefore, it be quite isolated, and not in situ, it may perhaps be a proof that the sandstone strata were formed, or, at least, that they were elevated to their present position, subsequently to the protrusion of the Búkit Tímáh granite through the crust of the Earth. I did not trace, however, any appearance of diluvial action upon it. Some detached but smaller fragments of granite were lying on the rising ground close to the opposite side of the road on Scott's Hill.

The specimens of these granites on both hills shew

1. Dark bluish quartzose granite, the mica hardly visible, the quartz being white,
2. Grey granite, about two thirds of the mass lamellar whitish quartz.
3. Dark bluish granite, close grained and quartzose, fracture of the quartz lamellar.
4. Very dark and compact granite, looking externally a good deal like basalt.
5. Granite on Scott's Hill, very quartzose and coarse grained, rest of a dark colour.

But, as I shall have again to notice, the general features of the sandstone strata induce me to believe that any upheaving force to which they may have been subjected, must have been exerted at intervals, and have been of varying intensity.

I found a coal black stratum at the foot of Bukit Timáh, in the alluvial or detrital level, of a substance which, if I may be allowed the expression, I will call an anthracitical compact clay. When exposed to a red heat in a crucible and exposed to the air, and the carbonaceous inflammable substances had thus been dissipated, the clay was found to have lost about three fifths of its weight, and the residuum was a biscuit of white felspar or a light brown earth.

THE SANDSTONE AND CLAYEY STRATA.

In so far as my observation has extended, these strata are not overlaid by any other rocks; while it would be impossible without boring deeply, for doing which we have no facilities in this country, to ascertain on what stratum they rest. Without the gauge therefore which would be supplied were other stratified rocks associated with them, I shall only hazard an opinion, founded on their general aspect, that they do not belong to the *latest* sandstone formation. The total absence of organic remains, at least in so far as my experience has gone, and also of the usual concomitants of the fossiliferous and carboniferous series, would be in favour of this supposition. Does this sandstone belong to the group which lies immediately under the oolitic? I should be inclined to think that it does, were it fossiliferous.

There is one difficulty however. How does it happen that hard

and crystalline sandstones should be so close to the surface, and by what pressure, in the absence of other strata, were they consolidated? The clays which overlie them could hardly have afforded sufficient pressure.

The force which tilted these sandstones, seems, as I have already observed, to have been unequal. Thus at the Government Hill,—where a deep section of 40 to 50 feet was made during the construction of a road past its south end,—these strata, which I judge to have been from 12 to 15 feet thick each, appear to have been suddenly and violently disrupted, for large and very acute angled masses of what I suppose to have formed the lowest strata, have been pushed to the surface, and lie imbedded unconformably in the clays which were disturbed at the same time. Some of these blocks, indeed almost all of them, had to be blasted with gunpowder before they could be rendered manageable for the purposes of building. The effects of similar disruption may be seen on “Prinsep’s Hill.” These very irregular shaped and acute angled blocks are of a reddish, of a brown, or of a grey sandstone.

The clays consist of red iron clay, and its shades, white felspathic clay, purple and yellow ochry and grey clays, bluish and greenish, and slate coloured, clays, and clays striated with various tints resembling decomposed granite *in situ*, before it has become converted by exposure into *laterite*. Where not so broken up, these clays exhibit the common appearances of stratification, and have become somewhat indurated. These clayey strata, where the force has been even considerable, have, owing to their flexibility, been only bent instead of being broken to pieces. They afford therefore good indices of the volcanic or upheaving force which has been applied in different places.

The annexed sketch fig. 1. exhibits a section of the hill at the tank on the right of the road passing up the slope of Oxley’s Hill beyond Government Hill, to the west. The angle of elevation is about 10° to 25° , the dip about N. E.

- | | | |
|--------|--|-------------|
| No. 1. | Reddish soil, upper stratum, | 2 ft. |
| 2. | Ferruginous gravelly red soil with clay, . . | 1 to 10 ft. |
| 3. | Yellowish, brownish and red sandstone,
coarse and soft, | 1 ft. 6 in. |
| 4. | Lamellar variegated and indurated clays | |

- and sandstone, soft, very whitish, greenish, yellowish &c., 1 ft. 6 in.
5. More indurated & waving reddish, greenish, yellowish, brown and white clays, 2 to 2½ ft. very distorted.
6. Shades of blue and brown clays, 1½ to 2 ft.
7. Greenish soft sandstone, 1½ ft.

Behind the Institution there was a hillock about 40 to 50 feet high, but which, since the period when I examined it, has been quarried and carried off for building. It well exemplified the effects of the upheaving force alluded to. It lay on a flat sandy level and was composed of large acute angled masses of red and grey sandstone, mixed with, or supported by, white and red clays. The softer sandstones seem both at "Oxley's Hill" and at Tân-jong Pagar to abut against the sandy strata now superior to them. Thus there will have been two contrary forces exerted, one upward, the other horizontal.

What I have termed red sandstone forms but a fraction of the whole series of strata, and its colour is neither intense nor uniform, passing into lake, dark brown and very light brown tints. According to Captain Franklin, the new red sandstone of Bundelkhund includes the laterite which is found reposing on the first rock or red marl. I shall have perhaps occasion hereafter to revert to this account, as I at present incline to the belief that an extensive formation which I have traced to the north of Pinang, bears a close analogy in point of position to the New Red sandstone. The exposed blocks lose in time their external colour, which changes to a whitish or a light yellow tint,—such pervading to several lines or even an inch in thickness,—owing I suppose to some chemical combination with oxygen of the iron contained in the mass.

The very dark colored stratum rapidly decomposes into a yellow clay; although, when fresh from the quarry, it is applicable to building.

The blocks do not separate into lamellar fragments, but into unequal ones,—the harder sort yielding with difficulty to the hammer and requiring gunpowder to break them up,—thus resembling old transition sandstone.

Frequent rounded masses of a white or grey sandstone, and of

a more crystalline texture than the blocks themselves, lie imbedded in the latter; and in several of the large blocks I have found, after they have been split, nodules of the size of a two pound shot, and nearly as spherical, of black iron stone, slightly glimmering, not magnetic and reluctantly yielding to the knife.

That the slightly reddish crystalline sandstone is very durable may be inferred from the fact that there was a rock of it, bearing an ancient inscription, extant on the narrow point on the left of the entrance to the Singapore river, but which was demolished several years ago in clearing the spot for some building. The inscription, fragments of which I possess, was only legible in a few places, the character appertaining to the Peninsula of India, and probably it may be that described in the Malayan annals in these terms "Rájá Súran of Amdan Nagará after conquering the state of Johore with his Kling troops [Kling is the term applied to the people of Coromandel] proceeded to Tamsak. When he returned to his country of Kling or *Bejaneegar*, he left a stone monument of his victories on which was an inscription in the language of Hindoostan. Tam Sak is also called Singhápúra." * This was about A. D. 1201 Singapura, observes Mr. Crawford, was first settled in A. D. 1160 by Sri Súrá Bawáná.

All of the sandstones seem more or less impregnated with iron, but I could not discover by the usual tests any lime in them.

With respect to these spherical nodules I am alluding to the fractured strata before described, in which alone I found them.

The stratification of the clays may be well observed close to the tank on the S. face or end of Dr. Oxley's ground.

A very instructive display of the strata of sandstones which have been forced over on their edges,—and thus now rest vertically—may be found, when the tide is at an ebb, below the rather bluff points stretching along the sea beach to the east of the town just beyond "Guthrie's Hill." These here form a rough and extensive platform. I did not observe, if I recollect aright, the hard red sandstone. The variety of the colours of the strata is here very distinctly defined. Their cleavage too appeared generally to be transverse to the stratification.

* Leyden's Translation, Annal 1st and 2d.

I have not observed any upheaved tabular sandstone formation resembling that so common in India.

The order of the above vertical strata passing upwards was originally, and, reckoning them laterally, now is, as follows.

1. The massive crystalline red sandstone assumed to be the deepest.

2. Clay.

3. Then the layers of other sandstones varying in thickness from one to four feet, with clay intervening.

4. Strata of clay.

Lastly, soil produced by the decomposition of these strata, and mixed with vegetable matter where these are not laid bare by the sea.

To whatever group this sandstone formation may be assigned, it is still plain that it exhibits none of the strata associated with coal beyond itself,—no example of the fossiliferous or carboniferous strata. If coal existed here, it should, unless very deeply seated, crop out along with the other vertical strata. But the usual European geological tests of the presence of coal appear to be often absent in these Eastern countries. The coal measures of Borneo may be prolongations of the sandstone formation we are describing. I have not seen any professedly scientific description of them. But from replies which I was favored with to written queries given by me to Captain Man M. N. I. and Captain Congalton, Com. of the H. C. Steamer *Hooghly*, and from specimens kindly procured by them, I gather that it is associated at Pulo Chinrin, which is about 200 feet high, with a ferruginous sandstone, and that a mass of red sand and clay overlies the coal.

At Pulo Kang Arang, again, from the specimen received from Captain Man, the stratum immediately overlying the coal, which is common coal, is a soft white sandstone; next, according to Captain Congalton's specimen, is a grey shale, but, as far as the specimen would determine, not fossiliferous; next a slaty, bituminous coal with sulphuret, I believe, of iron betwixt the laminæ; then a glistening light bituminous coal rather iridescent. The slaty coal exhibits the iron pyrites either in thin films or in cubical pieces. The strata, as far as I can gather, are horizontal or nearly so. Above the sandstone lay earths. The Borneo slaty

coal appears to be common coal, burning with a good deal of not very bright flame, and leaving a brownish earthy residuum.

On looking at the specimens already described after a lapse of about five years I find the surface and the interstices betwixt the laminae covered by copious groups of crystals of Alum. It does not ignite very quickly. Specimens of the accompanying strata shew yellowish clayey sandstone tinged by iron of a brownish colour; whitish sandstone; a fawn colored earth; and a bluish white clay; none of which exhibit, under a strong glass, any remains of plants or fishes.

I have been exploring, during the past ten years, for coal along the coast to the north of Pinang, and have lately ascertained two localities where I think the fields are promising. I have specimens also brought to me by my people from other localities. An excursion as a passenger, which by the obliging permission of the Hon'ble the Governor of the Straits, Lieut. Colonel Butterworth, I made in the H. C. S. *Hooghly* last May, was too short to enable me to do so much towards a minute description of the coal field of this section of the Continent and its Islands, as I wished; but this may be accomplished hereafter. If the Singapore sandstone strata were to lie betwixt the lias and the coal measures, it might be inferred that the red variety is the new red sandstone. Mr. T. Lay describes the same coal, I believe. He observes that it lies at an angle of 45° and is 6 feet broad, covered by powdered sandstone, hills or ridges of soft sandstone forced up into ridges by volcanic action. He supposes that the hard red sandstone which crops out was the original rock.

The variety of soil in Singapore which is often found within the area of twenty or thirty yards is very apt to puzzle the agriculturist who has not adverted to the cropping out of the sandstones.

The reddish coloured sort does not yield a red, but a whitish, a yellowish, or a grey, soil.

The white kind gives a light coloured sandy soil. The yellow produces a brownish one, while the blue and variegated clayish strata afford a great deal of red soil.

I believe that it has been considered that the new red sandstone yields by decomposition a very fertile soil. I have not, however, been able to find in the Island any red soil directly derived from

that rock. There are a few scattered patches, it is true, of red or reddish soil, but they appear to belong to the clays.

I find, after a careful examination of seven of these sandstone strata and an equal number of their respectively superincumbent soils, that they all contain very nearly the same relative average proportion of silex, or 48 per centum;—thus evincing that nothing else could have intervened betwixt the outcropping strata and the soil, now overlying them, which could have formed that soil. The maximum of silex is 87, and the minimum 5 per cent. The average of three of the most crystalline was 78 per cent., and of three of the other most distinct strata 49 per cent. There is a great absence of quartz veins in all of these sandstone strata of the Island, but they become more common upon the islets lying off the harbour. I have observed, however, on splitting large blocks, that some of the fragments had been cemented, as it were, by a solution of very fine white silica, a few lines only in thickness.

The vertical strata above described seem to have been thrown into their present position by a different force from that which heaved up the Government Hill,—for these have not been disrupted; and although the force which tilted them over must have been great, they have maintained their parallelism, and doubtless their original direction, for the dip appears to have been about E. and W., varying to S.E. and N.W.

The plain upon which the suburbs and part of the town of Singapore stand is chiefly composed of deep beds of sand,—sometimes white, occasionally bluish or reddish; averaging from 90 to 95 per cent of silica. The rest is aluminous. This sandy tract and some others lying along the seashore have doubtless been formed by a retreating sea, since its sand is mixed with recent shells and sea mud.

The vallies have a peaty superstratum, which varies in thickness from half a foot to a foot, or a little more. Below this lies generally a bed of cold clay, and below this a stratum of arenaceous clay. But near to the sea this last is exchanged for mud. This peaty earth is generally blacker than the peat of colder latitudes, where, as far as seems to have yet been discovered, perfect peat can alone be formed. It is also lighter, since its vegetable matter has not been sufficiently decomposed. It also wants

coherence being very friable. It seems however to aid in preserving the stems of trees which lie imbedded in it, but to a limited extent only.

When burned in contact with the atmosphere the result was	
Carbon,	43.
Silex and other earths, . .	2. 75
Very magnetic & minute	
grains of protoxide of iron, . .	. 25
Loss,	51.

This specimen so examined was from the swampy flat at the base of the western slope of Mount Sophia.

100.

Sir H. Davy shewed that, in general, peat is found to contain from 60 to 99 parts of inflammable or destructible matter, the residuum being similar to the components of the substratum, with some oxide of iron.

THE IRON STONE.

Although the ironstone of the Island is most commonly found in detached masses, yet there are thin strata of it also. These last occur chiefly amongst the upper sandstone and clay layers.

I am inclined to believe that these masses in most instances are concretionary, but I have in several localities found them in situ, either in thin strata of irregular thickness, or forming a sort of dyke cutting vertically through the clays. This vertical appearance may be deceptive, for the clays may have been similarly inclined at first, but decomposing and mixing afterwards, may have left the harder ironstone by itself.

This ironstone, which has been called by some laterite, has not I believe been analyzed. It has been considered I understand to contain Manganese, which is probable enough, since Umber, an ore of iron, contains that substance. It exists from the size of coarse sand, and smooth small pebbles, up to rounded masses of ten or twelve feet in diameter. It has a black or dark clove brown aspect externally; sometimes it is scoriated; and I have found it botryoidal, and this at the depth of six feet from the surface of the ground.

Internally it is cellular like ætites—the cells containing the same substance as the mass but in a pulverulent state, and of a reddish yellow colour. It varies in density, and where hardest does not

easily yield to the knife. It is not magnetic in the mass, but, when pulverized, grains of magnetic iron appear. The powder is a dark brown earth. It resembles a good deal the very magnetic ironstone found by me in the Tavoy Province, Tenasserim, in 1825. But amongst the sand and gravel in which these ironstone masses lie imbedded, I have found grains of highly magnetic oxidulous iron ore.

There is a good deal of this iron ore upon Bukit Julútong, which is a hill belonging to me in Province Wellesley, Pinang; and it was there generally used by the Malays to make iron. But it was not found rich enough to repay the trouble of working it.

The depth at Singapore of the iron clay and conglomerates rarely exceeds six feet, the average being about three feet, and they very seldom extend in any given locality over a greater surface than three or four acres. But where the ironstone does not appear superficially, it will pretty generally be discovered below, at the depth above given, provided the incumbent soil be of a reddish hue.

It is most common at the extremities of the ridges, and on their summits, in their lower slopes and in their hollows. In the latter case it is thickest in the centre, fining off towards the edges, but often terminating abruptly at its greatest thickness.

Where the ironstone stratum contains a large portion of the metal it is very steril, but where the oxide of iron is not in excess the soil there becomes the most fertile which the island possesses, although the limit is very confined.

Captain Francklin notices that the amygdaloidal iron clay at Bartia in India is steril and bare in some places, and apparently highly productive in others.*

It appears occasionally as if running in a superficial vein, but this seems to be merely owing to its superior hardness to the vertical strata which were in contact with it, and which have been disintegrated. The red iron ores chiefly belong to the secondary formation, those of a dark brown or black colour chiefly but not exclusively to primitive ones.† To this last class the one we are describing bears a close affinity.

The specimens before me are

* Page 70.

† Phillips Minerals p. 47.

1. Very dark and glimmering, cemented by brown pulverulent clay.
2. The darkest coloured, contains a good deal of quartz as may be observed by a microscope.
3. Small quartz grains connected by a ferruginous clay.
4. Hematites, reddish brown, slightly glimmering.
5. Brown coloured, mixed with blackish and very red. with whitish grains of quartz.
6. Mixtures of all these.

This scorious ironstone has been termed laterite by some enquirers, and in a few places it and its conglomerates a good deal resemble in external appearance, and partly in their internal structure, the original type,—the laterite first described by Dr. Buchanan, from its likeness to a brick. He found it on the Peninsula of India, and particularly I believe on its western coast, Malabar.

I have seen extensive beds of it at Cannanore on that coast, and it there materially differs from this Singapore stone, and that also of a similar nature found at Malacca. The Indian laterite, if we are to be guided by that observers description, ought to be deemed the true one. It is much lighter and more uniform in colour than the Singapore or Straits kinds. It is much softer than these when in situ, being dug out in small blocks and shaped like large bricks by a knife or hatchet or even a sharp piece of wood. It contains, Dr. Buchanan observed, "some lime." The quantity of lime will doubtless correspond to that contained in the felspar of the underlying granite. But it becomes equally hard by exposure to the weather. It is also internally more cellular and reticulated. I will not pronounce positively, after the lapse of many years, that the Cannanore laterite reposes in situ on granite, but I believe it does; and that it has been the result of the gradual decay of the latter.

Dr. Buchanan, observes that the laterite appears to be the *argilla lapidæa* of Wallerius, has no appearance of stratification, lies over granite in masses, is full of cavities and pores, contains much iron in the form of red and yellow ochres, can be cut with a trowel or large knife when in the quarry, becomes hard like brick by exposure, does not ever contain it is said any vegetable exuvia. It is called in Tamul "*Stria kulla*" or brick stone, but its proper

name would be laterite from lateritus. The laterite of Malabar contains some lime.*

Captain Franklin observes, "that the granite at Herapore is capped by heaps of ferruginous conglomerate, which last is connected with a stratum of iron ore, and on this last the new red sandstone reposes."†

These two last strata were produced of course subsequently to the protrusion of the granite and the conversion of its outer portion into the conglomerate, if this last be not meant to imply a *breccia* containing fragments of other rocks than the granite.

This condition or assigned origin would be quite sufficient to stamp it with a distinctive and uniform character. Whereas the Singapore ironstone is the result of deposits in water of the debris of primary rocks. In this state in Malabar it looks originally like a gritty clay, mottled red and white. The Natives of Malabar build their houses with this substance. The iron it contains becoming further oxydized by exposure acts as a cement, and helps to change the mass from its original greyish colour to a dark brown or reddish brown, while the contraction of the clay in drying produces the internal cavities alluded to. The stratum of clay or decomposed granite which lies nearest to the parent rock on the Pinang hills much resembles externally this Malabar laterite, but it scarcely hardens on exposure. The Malacca rock of which the old Dutch fort was built, approaches much nearer than that of Singapore to the Malabar laterite.

I have traced this *lateritic* formation up to the latitude of Junkceylon, and I suspect that it exists in a more or less perfect state along the whole of the western coast of the Bay of Bengal where that is backed by granitic mountains, and perhaps where it is so by other primary rocks. When the granite is highly micaceous and felspathic, its decomposition may, I think, be expected to afford a perfect laterite.

When the Singapore lateritic ironstone occurs as a substratum, it bears marks in its dark brown colour and its imbedded pebbles, of having been once a surface one. This stone is more continuously and extensively distributed on the small hills and undulations in

* As Res. vol. III. p. 440

† Geological Acct. of a Part of India, p. 75.

the vicinity of the Town and along the road to New Harbour, including the Government hill, than in any other locality on the Island, while the ochry earths and clays predominate in the interior. The white or porcelain clays are found [and I believe of good quality for the arts] in beds, in various spots and sometimes close to the iron clays.

There is a sort of soap stone looking substance, streaked red, white, and greenish, which is found in thin layers or massive amongst the clays. It is rather greasy to the touch, and has occasionally a fibrous texture.

Being desirous of comparing the strata already described with those of several small islands lying off Singapore, I got into a sampan on the 1st Oct. 1844, and rowed round several of them, not, however, without having been pretty well drenched with salt water, for these boats ship water when the sea is scarcely ruffled. I had, however, to repeat my visits, one day being insufficient for my purpose.

PULO TIMMUKUL.

This little island is entirely composed of sandstone and clay. It is about 60 yards in diameter and is surrounded by coral beds, and it is about 50 feet high.

There are five distinct strata visible, (fig. 3.) inclined at an angle of about 30° to 40° , and the dip is to the SE.

- No. 1. Whitish and reddish.
- ” 2. red, 2 feet.
- ” 3. yellow, 2 feet.
- ” 4. ” 8 feet.
- ” 5. red, 3 feet.
- ” 6. Light red and brown soil.

A vein was here noticed of hematitic ironstone, and a very large block of ferruginous conglomerate lies unconnected at the base of the natural section of the Island. It is intersected by veins of quartz.

PULO CHIKUKOH.

The sandstone strata here dip as at Pulo Timmukul but they have been elevated to an angle of about 55°

At the sea level I observed a hard stratum having a scientific aspect. At the east point of this island numerous small veins of quartz occur in the sandstone, and occasionally well defined quartz crystals.

The stratification is as follows—passing upwards.

- No. 1. White sandstone, 16 feet.
- „ 2. Reddish and whitish, 17 feet.
- „ 3. Purplish and very argillaceous, 7 feet.
- „ 4. Yellowish red, 40 feet.

This island was decked with a tree named by the Malays *Susup*, having a bright scarlet flower.

BLAKANG MATI.

This island is about $2\frac{1}{2}$ miles long with a maximum height of about 308 feet. The name implies “Dead back” owing to the steril soil on its southern face.

The strata here show themselves prominently some way up the hill. (fig. 4.) I did not ascend, being obliged to return before dark.

PULO TOKONG.

This small island is from 15 to 20 feet high. The strata of sandstone incline at an angle of about 60° , towards the North or N. easterly.

They are whitish, yellowish, and green, 4 to 6 feet thick, with thin layers betwixt them of reddish and yellowish sandstone. There are several small caves in the lower part of the face of the rocks. The strata have been much disturbed.

PULO BUAH SAGA.

So called from its fancied likeness to the *Indian pea*. The sandstone strata are here *vertical*, their line of direction being about NW. and SE. But at the east end of the Island there is a slight inclination, the inclination being to the NE.

PULO UBI.

I found here a quartzose schist,

PULO PANJANG.

There is on this island a hard, grey, and very quartzose stratified rock. The quartz white and lamellar, general colour, bluish, white, contains specs of black mica.

BATU BERLAYAR.

This sandstone rock stands conspicuously off a *point* of Singapore island which flanks the inner harbour or passage.

The strata of this *point* are highly inclined, and in some instances almost vertical. They are all *waved*. The direction of their vertical line appeared to be NW. and SE.

SECTION 1ST.

(fig. 5.)

		feet.	inches.
No. 1.	Yellow and red,	8	”
” 2.	Purplish and white or mixed,	7	”
” 3.	Red, purple and whitish,	8	”
” 4.	Thin stratum of red <i>lateritic</i> iron ore, . .	”	8
” 5.	Purple,	20	”
” 6.	Do.	20	”

Total 63 8

Some thin quartz veins are found in these strata.

SECTION 2nd.

(fig. 6.)

No. 1.	White sandstone,	7 feet.
” 2.	Yellowish and red do. . .	8 ”
” 3.	Purple and white mixed, . .	7 ”
” 4.	Purple and whitish yellow— distorted stratum,	7 ”
” 5.	Purple strata,	50 ”

Total, 79 ”

Proceeding near to the mouth of the Johore river, I examined two small islands or rather rocks, called Pulo Hantú “Ghost Islands.”

Here are the first indications of (what I suppose to be) the secondary strata. The rock is a hard slate considerably fractured.

This rock dips to the southward at an angle of about 25°

The strata were a quartzose bluish grey *compact* slate, barely yielding to the knife; a darker coloured sort and harder; a grey quartzose and still harder slate, blue; a compact schist not yielding to the knife; a very hard lighter coloured and more massive schist, and lastly a dark blue compact stratum, quartzose and ferruginous, fracturing cubically.

JAMES LOW.

Province Wellesley, 1st July, 1847.

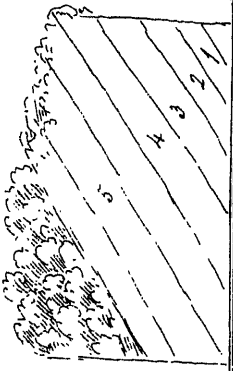
Fig. 1.



Fig. 2.

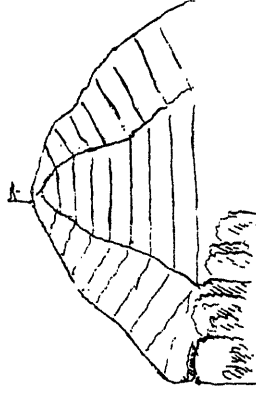


Fig. 3.



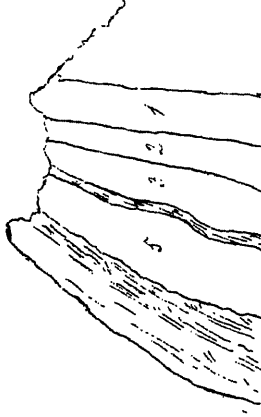
Sea.

Fig. 4.



Sea, face B.

Fig. 5.



Sea.

Fig. 6.



Sea.

Lith. at the Miss. Press.

Singapore, 1847.

DESCRIPTION OF KARANG BOLLONG AND OF THE BIRDS NESTS ROCKS THERE.*

THE district of Karang Bollong is situated in the residency of Bagelen, division Ambal, on the southerly sea coast between the rivers Chinching golong and Djetis, both of which have their embouchure in the sea,

The first is crossed at the post named Sowook, and this is often attended with danger; because, when the sea is rough, it runs in a bay in the river, which capsizes small boats, (*getek*) and occasions the loss of life from time to time. Having crossed we arrive at the foot of the hill Bollong, and from this we are carried further in chairs. On the top of this hill, which is about 250 to 300 feet above the level of the sea, we have a most beautiful view over the south promontaries, the Ocean, and to the west over a fortification. Descending thence we come to the village of Karang Bollong where the residence of the Overseer is situated.

This house is built of stone and covered with allang allang. It has a verandah in front and behind, and is provided with six rooms, besides a stone godown covered with tiles to keep the birds nests, and having convenient out offices of bambus. From the front verandah we have a view of the south promontary, Karang, called Kúda, on the east mount Klotto, on the north the mountain Pangerangan, and on the west the mountain Koboronbo. On the summit of the mountain Kalibet lies in the form of a triangle the fortification named Karang Bollong, which is furnished with two 6 pounders, and has a garrison of one serjeant, five European and thirty native soldiers,

Before the house of the overseer on a knoll there is a bambu cupola from which we have a view to the east, through a cleft, of the ocean, while the view to the westward embraces the village of Karang Bollong.

At Djeladrie situated in the vicinity of Karrang Bollong there are ponds into which the flow of the sea bring fishes. These fishponds however, are dependent on the more or less favorable state of the weather, because it has happened that the fish have escaped from

the overflow of the water. Once or twice in the year the fish are sold to the population of the district of Karang Bollong, and from the proceeds the sluices of masonry and cleansing of the ponds are provided for. The surplus is divided between the people of the villages of Súwook and Djeladrie who keep the watch.

Generally speaking the place may be considered healthful. The thermometer (Fahrenheit) is found, as a mean, in the morning at 6 o'clock from 70° to 74°, at noon from 82° to 85°, and in the evening at 6 o'clock from 77° to 79°.

The population of the district Karang Bollong consists of 1000 able bodied men, who are free from all state-service and contributions, excepting the maintenance of the roads. They find their livelihood by gathering birds nests, in the cultivation of sawa and tagal* fields and in fishing. The women on their part keep themselves busy in weaving cloths, which are everywhere in good demand, and are much sought, as I have heard, in the capitals of the residencies Súrakarta and Djokjokarta.

It is generally known that Karrang Bollong furnishes annually an important produce of birds nests, but it is less known in what manner the collection is made and with how much danger to life it is attended. For this reason I have deemed it not inappropriate to give a description of it here as exact as possible, commencing from the time when the collection begins.

The gathering of the birds nests takes place three times a year under the name of *Udúan kesongo*, *tellor* and *kapal*. The first begins in the end of April, the second, in the middle of August, and the third, in December. The yearly produce is commonly between 50 and 60 piculs.

When the time for the gathering approaches the heads come together with the persons they employ, before the residence of the overseer, who then, in the presence of the Wedons, Mantre and the writer, fixes the amount destined for the procuring of bufaloes, he-goats, rattans, bambus, and torches, as well as the distribution of opium, incense and *atal*.

After all this has been done, a servant is sent to the *Goa Nogosarie* accompanied by the head men of this cliff. The Goa

* *Tagal*, dry rice cultivation equivalent to the Malay *umah*.

Nogosarie is the most accessible, provided the sea is not too rough. Six nests are then ordinarily collected to be compared with the sample of the previous year and to judge if the collection can take place or not.

If the head men consider that the nests are fit to be collected, the people then send for the Wayang and Toppeng, and the overseer makes further regulations with the head men of the cliff, for what is necessary for offerings and feasts.

According to old custom, a Thursday is always chosen to make a beginning with the preparation of what is needed for the feast, so that on this day the people occupy themselves with cleaning the Ballang,—the cliff which is situated at the mouth of the river Tjintjing Guling.

The next morning (Friday) the buffaloes are killed. Two hours afterwards they take some pieces of flesh, tongue, entrails, &c., from the slaughtered animals, and place them on small bowls woven of bambus called *Sadjen*. They are then offered to Bollong Watu Tumpang and near the watch houses of the cliffs at Dabar, Gedee, Wale, and Nogosarie; while at the cliff of Medjengklek a he-goat is offered with incense. This festival must, by old custom, always take place on a Friday, which by the natives is called Ngaderan. In the afternoon of the same day a Wayang is performed in the Bollong, generally a piece of seven acts: while the necessary flowers, fruits, ointments, siri, pinang &c., and what is further required for the offerings are prepared by the *Tukan kembang*. All these materials are placed on the before mentioned bambu bowls, and, in the evening at $\frac{1}{2}$ past 5 o'clock, are brought by a servant into the Bollong near the Seroot tree. The origin of this tree is ascribed to a Javanese named Kiai who is buried there, and above whose grave the tree has risen; and now the superstition of the natives declares that the tree has sprung from the navel of the dead. They likewise make offering on the burial place, at the waringin tree, and in the room, the pantry, kitchen and other places in the dwelling of the overseer.

After the wayang-players have returned from the Bollong, the bed placed near the entrance of the godown, known under the general appellation of devils-bed or bed of Nyai Ratú Kidul (which has existed from time immemorial) is put in order by the *Tukan*

Gedong and ornamented with some silk and other cloths. Nobody but this woman is allowed to do this. Every Thursday during the time of the collection this bed is cleaned and offerings are made to it.

After everything has been made ready the small lamps are lighted and the small bambu bowls with flowers, fruit, &c., are placed with particular marks of honour by the *Túkan Gedong* before the bed on a small couch made for the purpose. At the same time she says in high Javanese, as if addressing some distinguished person "By order of *Mijnheer* (meaning the overseer) I here bring wherewithal for you alone to eat." After this speech the *Túkan Gedong* herself answers "Yes, mother *Túkan Gedong*, say to father *mijnheer* (the officer) that I return my thanks for the food which he has sent me."

After this ceremony is finished the *Túkan Gedong* remains sitting on the bed, and further asks *Nyai Ratu Kidul* (who is supposed to be present in the bed) "if it be agreeable to her that the birds nests should be collected and if it shall take place without mischance", which request is ordinarily answered with "yes" (*ingie*). During this time the wayang is kept up till the next morning.

The following morning (Saturday) the heads of the cliffs *Dahar* and *Gedie go*, with the persons whom they have employed, to their goas, with the ladders which have been prepared some days before, and accompanied by the *Gedeks* and *Sentonos* for each cliff in order to make further preparations for a commencement; while during all the day the *toppeng* play is maintained.

The cliffs *Walo* and *Nogosarie* are visited eight days later, and *Medjiengklek* two days after that. I have enquired what could be the reason for visiting these cliffs latest but no explanation could be given to me. In the evening, the *toppeng*-play being finished, the so called *Karang Bollong* feast begins, on which occasion the *gami-lang* and two or three dancing girls make themselves heard. At the first seven acts the dancing girls turn their heads towards the birds nest warehouse in honour of *Nyai Ratu Kidul*, and it is a general custom in the district of *Karang Bollong* wherever a feast is given to dedicate the first seven songs to the honour of *Nyai Ratu Kidul*. So soon as the *wedons*, *mantre*, writer, the head of the cliffs with their people, and some heads of the *dessas*, are met, they sit down on a mat in a circle to dine. The writer places himself at

the head of this table and proposes different toasts to the success of the approaching collection. After the guests have satisfied themselves opium is offered to every person present. The company enjoy themselves some with dancing to the music of the Gamelang, some with opium smoking, while others occupy themselves with chewing serree, and this continues till midnight, when the feast ends.

After this feast (on Sunday morning) the head men take their departure for their rocks, and, if the sea is not too rough, the ladders are joined in order to reach the entrance of the holes that they may collect six birds nests, which, from prudence, are again compared with the musters. The harvest then is arranged. But if it should be found that the nests are not yet ready to be gathered, further preparations are stopped in order that the swallows may not be disturbed. If it is found that the nests are of the proper bulk, the work is continued by making stages and ladders and fastening them to the rocks into which the collectors have to descend. All these operations being completed in five or six days, the inhabitants of the nearest dessa go to the cliffs Dahar and Gedee with the men belonging to these cliffs, accompanied by gandeks and sontonas who carry with them the requisite bags to contain the nests which may be gathered.

The number of collectors for the first day is limited to 80 or 90 persons for each of the two cliffs, and this number afterwards diminishes as the nests are gathered.—When the bags are filled they are brought to the godown under the direction of a Gúru. On arriving, there, a *sedeka* is given, consisting of red and white bubor, and this feast is regulated by the collectors of the day for each cliff. After the priest has spoken his benediction over it and the dishes have been eaten, the nests are weighed and stored in the godown on a flooring of plank made for them.

The work of the remaining cliffs Wollo Medjiengklek and Nagosarie is nearly the same, but the collection at the first two places is made by the people employed without any payment on account of the smallness of the produce. With respect to the last, sixty or seventy persons are ordinarily employed, and 57 to 60 rupees copper is paid for each collection to the head men. The sum is divided amongst the bekels and the people. On account of these cliffs being

situated at about five miles distance over very difficult roads, the birds nests are kept and watched till the next morning in a bambu house, called *kongsie* made near the watch house of the cliff. They are afterwards brought to the godowns for which each bearer receives 5 cents, a sogo of opium of $\frac{1}{4}$ sikar weight.*

The collection of the nests necessarily depends altogether on the state of the sea. On the top of the mountain Kuda a flagstaff has been erected for this reason, and when a white flag is hoisted it is a signal that the sea is calm and that the holes can be approached, but if a black flag be shewn it is a signal that the sea is too rough. Each collection from all the holes is finished in twenty to twenty four days. The principal birds nest cliffs are those which I have described above, and they extend from the east to the west along the Karrang Bollong south cape. Between these, there are some smaller cliffs the produce of which is of little or no importance.

The collection of the nests is attended with much difficulty and sometimes even with danger to life, because the apertures are situated at the foot of the rocks, and are consequently on a level with the surface of the sea, so that the water washes in and out of some of the holes. Hence when the sea is somewhat rough it is impossible to reach the apertures, much less to enter them. In order to form a just idea of the dangerous work which must be performed by the collectors I will try to give an exact description of it.

To enter the cliffs you descend one precipice of two hundred feet, nearly perpendicular, by means of one, two or three rattan ladders (according to the greater or less height) which are 5 inches broad and each 77 feet long. The lateral or principal ropes are composed of wild rattans twisted together to a thickness of two inches, and having wooden steps two inches thick and thirteen inches distant from each other. The upper end of the ladder is well fastened to a strong tree by black ropes and the lower end is placed on one of the rocks.

In order to reach one of the holes, they make use of two rattans each one hundred and eight feet long; but in some cliffs bambus are used 12 to 18 feet long which are placed one above the

* A Sikar is a half cent or the 2 hundredth part of a rupee or gulden (gulder.)

other—that they may steady themselves by holding the upper when walking along the under. The entrance of the caves is about 18 feet broad, more or less, and 30 high. The interior is from 60 to 114 feet broad and from 420 to 480 high. The bottom of most of the caves is washed for about one quarter of its length by sea-water, three, four or more feet in depth. The whole of the interior appears to consist of limestone. In the caves are stages made of bambus which are bound fast with ropes to the walls of the rocks on which the collectors stand. It often happens, in consequence, that the cliffs on which the ropes of the stage are fastened become loosened and the whole stage is precipitated, which sometimes occasions a loss of life. Most of the nests are taken from the wall by the hand, and those which are on the roof, by an iron hook fastened to a long bambu.

The swallow named *lawet*, has a compressed head, which, however, with its thick and rounded feathers appears large in comparison with the body. The beak is broad and wide with a black awl-shaped small point bent downwards. The eyes are black and tolerably large, and the tongue arrow-shaped. The throat is very short as well as the bones of the wings and feet. The feet consist of four toes of which three are in front and one behind. All the toes have black, curved, sharp, and tolerably long claws, so that the bird can every where lay fast hold of the rocks and cliffs. The tail is almost as long as the whole body. When the throat, the wings and the head are spread out, the bird has a circular appearance. The colour is greyish black inclining a little to green. On the back near the tail to the belly the blackish passes into mousecolour. The breast is bluish.

Besides these, some wild species called *lintye* inhabit some holes. These are somewhat smaller, and have a white breast. In other respects they agree completely with the *lawet*. The nests which they make are constructed of grass stalks. They are, however, of the same form, and are as artfully made as the others, but are without the least value. The residence of these swallows *lintye* in the caves, contributes greatly to the injury of the holes, for which reason they are destroyed as much as possible at each gathering.

On the walls of the rocks, the birds build their nests in horizontal

layers close to each other. They place them at different heights from 50 to 300 feet, as they find room, and leave no holes or suitable spaces open, provided they are clean and dry; for when the walls prove damp they forsake their nests. When the sea attains a high level, which is usually accompanied by a strong surf beating against the cliffs, a percolation of water is caused which is, in the highest degree, prejudicial.

In the mornings at break of day the birds fly out with a great noise to seek their food, to the neighbouring places in the east monsoon or dry season, but in the west monsoon or rainy season, they do not go far. They return to their caves about 4 o'clock in the afternoon. They feed upon different kinds of bloodless insects, hovering above the stagnant waters, for which their wide open beak is very useful.

Their greatest enemies are the birds *ulang* and *alap-alap*, who pull the young swallows out of the holes and seize many as they fly out of the caves.

They form the nests, by vomiting the strongest and best fragments of the food which they have eaten.

When the nests have been all plucked, the entrances are closed with bambu fences, the doors are sealed, and the rattan ladders are brought back to the store house.

The nests in the store house are, some days afterwards, weighed, and packed in hampers (*geboks*, each 25 catties), made very tight with cross ropes, and sealed with the stamp of the overseer. Pieces of paper are placed on each hamper, with the number and the nett weight of the nests written on it.

All this having been done, the hampers are surrounded with cocoa-nut leaves, prepared in the manner of kadjang mats. Every two hampers are then made fast to a piece of bambu (*pikol-an*) provided with two props, in order that, when resting on the way, the hampers may not touch the ground. They are besides covered with *pinang* bark so that when it rains the water can run off. Finally they are all sent to Surakarta in order that they may be there sorted.

The evening before the birds nests are sent off another feast is given, and on the following morning, all the coolies depart with their hampers for Surakarta amidst the playing of the gamelang and shouts of hurrah.

DETAILS RESPECTING COCHIN CHINA.

By the Right Reverend DR. LE FEVRE,

*Bishop of Isauropolis and Vicar Apostolic of Lower
Cochin China.**(Continued from p. 65.)*

GOVERNMENT, KING, MANDARINS.

THE Government of Cochin China is the most pure despotism which is to be found. For the rest, it is an imitation of that of China. The power of the king is absolute, and without restriction. He can make all laws which appear proper to him, for he is the sole legislative authority. He cannot, however, entirely abrogate the ancient laws, on account of the respect which he believes himself bound to shew to the memory of the kings his ancestors, and because these laws have acquired a sacred character according to the opinion generally received by the nation, and against which the most absolute power could not struggle; but he is able in many circumstances to mould them to his laws, and to elude them in a thousand ways without expunging them from the code. The lives and the properties of his subjects are in his hands and at his disposal; severe punishments are all inflicted in his name, and never without his consent. If the case is capital by law, which often happens for it is excessively severe, the judges have nothing to do, but to institute the process and pronounce the legal punishment, but the king usually mitigates it, in order to manifest that he only acts to shew clemency and moderate the rigour of law. He thinks by this to escape the odium which attaches to the condemnation to death. The power of conferring rank and dignities is also reserved for the king, as also of displacing the mandarins and disgracing them. In a word he has the same authority over the subjects of his empire that a father of a family has over his children. The people are taught not to raise their looks towards the throne, except with sentiments of fear and veneration, and to regard all the blessings of life as emanations of his goodness. Every year he offers a solemn sacrifice to heaven for the prosperity of his reign. In times of calamity and in difficult circumstances he fasts,

prays, and sacrifices to avert the plagues of heaven; or he causes all these things to be done by his mandarins.

This powerful monarch is surrounded by a crowd of eunuchs, and passes the most part of his leisure with the women of the palace. One only has the rank of wife; but she does not bear that of Queen or Empress. The number of concubines is unlimited. These women are cloistered for ever within the walls of the residence of the king. On his death they are shut up in another palace, where they must preserve their chastity.

The king wears clothes of a yellow colour, ornamented with embroideries of figures of the dragon. The robes of the mandarins are blue or violet, sometimes enriched with embroidery of gold. When they march in the train of the king on the occasion of some great ceremony, their robes of silk, their religious silence, the order and the decorum which they observe, offer an imposing spectacle.

We find two classes of Mandarins; the lettered mandarins and the military mandarins. The military mandarins are usually men without education; bodily strength and a certain aptitude for the manual labours, to which the soldiers are applied, form often the whole of their merit. Their pay is also very small, at least until they arrive at high grades. The lettered mandarins are divided into nine orders: the ninth, which is lowest, is that of secretaries employed by government; those of the eighth, are also a kind of secretaries or writers, principally employed in the preparation of the calendar; they only adapt the Chinese calendar to the use of the Anamites, for they are not at all so learned as to be able to construct one themselves. The mandarins of the 7th and 6th orders, are the officers of justice who commence causes, and write down the depositions of witnesses and of the accused. The heads of arrondissement are of the 5th order, the sub-prefects and the judges are of the 4th; most of the prefects of each province are of the 3rd; the ministers of the king are of the 2d.; there are only one or two great mandarins of the 1st. order, who are appointed to the council of the king.

For the administration of the affairs of Government, there are six departments or ministers, who are called *Luc bó*: The 1st (*bó lai*) is charged with pointing out the mandarins fitted to fill vacant places, and examining the merits of candidates. The second, (*bó hō*), is


a kind of minister of finances charged with all that concerns the royal treasure and the imposts. The 3rd, *bổ lễ*, directs and presides over ceremonies according to ancient customs. The 4th, *bổ binh*, regulates military affairs, like our minister of war. The 5th, *bổ hình*, takes cognizance of and punishes capital crimes. The 6th, *bổ công*, is our minister of public works, but he has wider functions. There is no minister for foreign affairs. For the marine, they have only a superintendent. The mandarins who preside in these different departments are far from having the same power as our ministers in Europe. They are obliged to report to the king all matters belonging to their office, even the most minute; and they must conform in all things to his advice, or rather to his orders.




The power of all the officers of Government is so restrained and so limited, that they are always in uneasiness and dread of being found in fault, and of losing their places. The duration of their administration in the same post, does not go beyond three or four years. They cannot exercise any important functions in the quarter where their parents reside. They cannot take a wife nor buy lands in the country submitted to their jurisdiction. If their father or mother happens to die they obtain leave of absence for at least six months, in order to fulfil the duties which a son owes to his deceased parents. Any one can accuse the mandarins before a great tribunal erected for this purpose and called *Tam phap*; justice is there done in all the complaints brought against them:—thus a magistrate has every right to felicitate himself, if he goes out of office without being accused.

The Cochin Chinese have nearly the same laws, and the same mode of punishment as the Chinese. They understand military tactics better than the Chinese, and have beat them many times. They have even some knowledge of European tactics which French officers taught them formerly. They have no cavalry, but they have elephants and a very well appointed artillery. At present they make muskets better, according to their taste, than those they can buy from Europeans. The soldiers only wear their uniforms when they form the cortege of the king or of great mandarins. This uniform consists merely of a frock ornamented with red or blue bands. The Cochin Chinese soldiers in spite of their cowardice, are however, I think a little less faint-hearted than the Chinese.

For the rest, the identity of the usages of these two people,—in superstitious ceremonies, the worship of ancestors, laws, government, &c., shews that they have had a common origin; which is confirmed by historical traditions. According to these traditions Tong-king was colonized by an Emperor of China, named Hoang té, about 200 years before the Christian era, and, after having undergone many revolutions, it became an independent kingdom. Many Chinese at the present time come and settle in Cochin China, but in smaller numbers than in other countries adjacent to China. These are the only strangers who are admitted into the country. They are more laborious and more ingenious than the Cochin Chinese; hence they easily make their fortunes amongst them.

THE LANGUAGE.

The Anamite language is monosyllabic. It is evidently derived from the Chinese. The written language has not merely some affinity to the Chinese character, but it borrows it in whole or in part. However, these two languages have become so different, that persons of the two nations cannot understand each other in speaking or in reading. All those who are in circumstances at all easy, or who aspire to dignities, devote themselves to the study of Chinese characters, which they pronounce in the Cochin Chinese manner. This study is necessary, because these characters are the only ones employed in most books, and in all official letters. There are general examinations in which those who obtain the first places are elevated to the dignities reserved for the lettered mandarins. This is a powerful stimulus to the ardour of the students. They are able in writing these characters (and it is the only means) to make themselves understood by the learned Chinese. Thus the learned language in Cochin Chinese is nothing else than the Chinese language. The only difference consists in the pronunciation. The vulgar language was only from the first a dialect, which they never wrote; but in the end the Cochin Chinese, having acquired an imposing nationality, the common language became of importance, and they sought the means of writing it. They had recourse to Chinese letters, the only ones they knew. Sometimes they have only taken the pronunciation of the Chinese character and have attached to it a totally different signification: thus, they have written  which

they pronounced *cha*, and which signifies father; but in Chinese the same character *cha* signifies to *put oneself into a passion*. On the other hand, they have united many characters of which one signifies the sense, and the other the pronunciation. Thus they write  *miêng*, the mouth. The first character  means the sense, the *mouth*, and the second  *minh* indicates the pronunciation.

This manner of writing the vulgar language has no generally adopted form. Many persons write the same word differently, and many characters are purely arbitrary. There are needed to fix the orthography of this vulgar language learned books written in it; but these are as yet wanting. There have only been written in this language our books of religion; many comedies and some poems; the learned men not being fond of reading works written in such a *patois*. They find that this writing does not express the thoughts clearly. We have adopted a plan of writing this language with our European letters, as has been done for the Malay language: we have succeeded in representing the sound of words very exactly. This much facilitates our study of the language. This language is not confined to the limits of Cochin China and Tongking, but is very commonly spoken and understood in Ciampa, Camboja, at Siam and in Laos. We find the sound of all our letters in this language, except the letter *Z*, and the letter *P* at the commencement of words; but they have the *ph* and the *p* final as in the word *bap*. If they have not exactly our letter *F*, they have the *ph*, which has nearly the same sound.

In this language, as in all others, they have proper names, and common names. Often in order to form a substantive they add the word *su*, which signifies thing, to the adjective or verb: thus *lanh* means good; *su lanh* signifies goodness. The adjective is ordinarily put after the substantive: e. g. *nha* means a house, and *tôt* means fine; they thus say *nha tôt*, a fine house. The comparative is formed by joining the word *hon*; thus *tôt hon* means *better*; for the superlative they add *lam* or *rât*; e. g. *tôt lam*, *rât tôt* signify very fine.

This language has not exactly gender, number or case; they can express them, however, by means of some auxiliary words. Thus to express the difference of sexes they use for the human

species, the word *trai*, for masculine; and the word *gai* for feminine: for animals the word *duc* indicates the male, the word *cai* the female, e. g. *bo duc*, an ox, *bo cai* a cow; for winged animals, they employ the words *trống* and *mai*, *ga trống* a cock, *ga mai*, a hen. Before the names of living things they ordinarily put the word *con* (boy or girl): thus they say, *con trai*, a boy; *con gai* a girl; *con trau*, a buffaloe; *con ca*, a fish. They also frequently use the word *cai* before the names of inanimate things; thus they will say *cai ghế* a seat; *cai nha* a house. They usually place the word *cây*, tree, before all the names of trees, and the word *trai*, fruit, before all the names of fruits.

To mark the plural, they add some word before the substantive as *chung*, *nhung*, *cac*, *phổ* &c.—We, *chung tôi*; All those who, *nhung kẻ*; Messieurs, *phổ ông*, &c.

The nominative always precedes the verb active. When two substantives follow one another, the second is in the genitive. The dative is ordinarily marked by the word *cho* placed before the substantive, e. g. to do something to some one, *làm sự gì cho ai*. The accusative generally follows the verb active, sometimes also it precedes it,—there is no fixed rule. The vocative is expressed by putting before substantive the particles *ô*, *a*, or in expressing the title of the person whom they name:—O my God, *ô chúa tôi*. The ablative is denoted by some prepositions, as *bang* *boi*.

The personal pronouns are, *tôi*, *mày*, *no*; me, thou, him; and in the plural, *chung tôi*, *chung bay*, *chung nó*, we, you, they. It is to be observed, however, that scarcely any but inferior persons use the word *tôi*, me; the king uses the word *tấm*, and others who are superiors in dignity use the words; *tao*, *ta*, *min*. *Mày*, *toi*, they do not address except to inferiors; if they speak to an equal, they will call him *anh*, brother; to a superior they will say *ông*, sir, or they will employ another titular word. They also rarely say *no*, of the third person; this would be a term of contempt, unless they were very much superior in rank; they will say rather this Mr. (Monsieur); *ngươi ấy* this person, or as well *anh ấy* this brother.

Personal pronouns placed after substantives become possessive pronouns; *nha tôi*, my house. The demonstrative pronouns are *này*, and *ấy*, this, that.

They only distinguish three tenses in the verbs: the present, the preterite, and the future. Thus *mén*, means to love; *tôi mén*, signifies I love; *tôi da mén*, I have loved, they thus form the preterite by adding *da*. They add *se* for the future: *tôi se mén* I will or shall love.

The Anamite language being monosyllabic, it follows that there is small variety in the sound of words, and that the same word has often a great number of significations. The difference of sense then is made evident by the difference of tone. Thus the word *ma* can have at least six different significations, according as it is differently pronounced; for they can pronounce it in six different tones which we indicate by marks. *Ma* pronounced in a full tone, *recto tono*, signifies phantom; if the tone is descending, *mà* signifies but; if the tone is grave or heavy, *mạ* signifies to gild; if the tone is falling, *ma* means a horse; in the interrogating tone *ma* means a tomb; in the sharp tone *má* signifies the cheek. We can represent these tones by musical notes. The full tone answers very well to *sol* from below; the descending tone to *mí* from below; the heavy tone to *ut* from below; the falling tone to *la*; the interrogating tone to *si* natural; and the sharp tone to *ut* from above. We can write these tones in the two following manners.



The tone varies a little in the different provinces. There is also some difference between the pronunciation of Tong king and that of Cochin China, but this difference is not so essential that we cannot understand them well. Only some words used in the northern provinces are not used in those of the south and *vice versa*.

THE STATE OF THE CHRISTIAN RELIGION IN COCHIN CHINA.

The Cochin Chinese are generally much addicted to religious practices. The Pagans have absolutely the same religion as the

Chinese. The learned men honor Confucius and have a sort of natural religion which they do not observe. The religion of Fô, which they call Phât, is the most generally followed by the people. The christian religion was first preached in this country by Franciscan and Jesuit friars, about the middle of the 17th century. They found among the Cochin Chinese an admirable disposition to embrace the christian religion. With the good sense with which they generally are gifted, they easily understood the vanity of idols and the solid proofs upon which our Holy Religion is established. Thus these first missionaries baptised many neophytes and founded numerous churches. But soon it was seen that something was wanting to their rising church. There were neither first Pastor at the head of the flock, nor native clergy to fill the room of European missionaries, when these were taken off by death or condemned to silence by persecution. It was then that in Paris the congregation called "Les Mission Etrangères" was, under the auspices of the head of the Church, formed to supply Bishops to govern these new churches and provide them with evangelical labourers. Having reached these countries, our first Bishops, Vicars apostolic, formed establishments to teach and exercise to the functions of the sacred ministry a few students whom they judged sufficiently able. They and their successors have thus worked in spreading christianity in Cochin China and Tong King for the space of about 180 years. They have succeeded in forming a national clergy who are of great assistance, especially during the persecutions, when European Missionaries cannot show themselves.

We have in Cochin China proper 40 Priests and a great number of Catechists and Ecclesiastical students. The Mission of Tong King is divided into two parts, one of which is entrusted to the Missionaries of our congregation. It has 80 Native Priests and innumerable Catechists. The other administered by Spanish Dominicans is less known to me; yet I am aware that it possesses a great many Priests full of zeal.

The number of Christians in Cochin China proper amounts to 80,000; in the occidental Mission of Tong King to 180,000, and in the oriental one to nearly the same number. Thus in the whole Kingdom there are at least 440,000 Christians. Since the beginning of

the last Persecution, however violent it has been, the number of Christians has not diminished: it has even increased in many places. We hope that the blood of martyrs, which has lately watered this country, will be a "new seed of Christians." Hence we have at this very time the consolation to see Pagans coming in crowds to receive the instructions which we give them secretly. The Church of Christ has been formed in Europe in the midst of Persecution; the ways of Providence are at all times the same; thus it is formed in these Countries in spite of the persecutions of the Princes of the world, that every one may say: "There is the finger of God."

OF MISSIONARIES.

In 1583 Father Bartholomew Ruiz, a Spanish Franciscan, reached Cochin China with seven other friars at "Fai Fo" close to Tournon: he was welcomed and the holy sacrifice of the mass was there offered up with great solemnity. They wanted nothing more but the permission of the King to remain in the country: which seemed to be without difficulty. But contrary winds prevented these friars from reaching the capital; they were driven by a hurricane to the Island of Kai Nam and returned to Manila. Father Ruiz went back to Cochin China at the beginning of 1584 and called on the King, who gave him leave to remain in the country.

The Chronicles of the order say that he wrought many miracles and converted many proselytes; but he was soon caught and brought to Macoa by the Portuguese, who even at that early time imagined they had alone the right to send Missionaries to the East Indies, in virtue of what they call "Real Patroado" or Royal Patronage.

It was about the year 1615 that Portuguese Jesuits and Spanish Franciscans went in numbers to preach the gospel in Cochin China, and from this time only dates the establishment of the Christian religion in that country.

In 1658 two French Priests, the Revd. Messrs. de la Mothe Lambert and Pallu were appointed Bishops, Vicars Apostolic, the one for Cochin China and the other for Tong King. The former left France in 1660 via overland and reached Siam in 1662, from whence he sent one of his Missionaries, the Revd. M. Chevreuil, to Cochin China: this gentleman was soon succeeded by

another, the Revd. M. Hainques : lastly in 1671 Mgr De La Mothe Lambert went himself to exercise his zeal in his Mission.

The Revd. M. Deydier is the first French Missionary who reached Tong King in 1666. Since that time down to our days, there have been in Cochin China 16 Bishops and 80 French Missionaries, and in Tong King 17 Bishops and 47 French Missionaries, all members of the Society called "Les Missions Etrangères." Their uninterrupted labours have raised these Missions to the flourishing state in which they are today.

NARRATIVE OF THE EVENTS CONNECTED WITH THE
ARREST OF THE RIGHT REV. MONSEIGNEUR

LE FEVRE,

Bishop of Isauropolis and Vicar Apostolic of Lower Cochin China

1846.

ON the 23rd of May, 1846, the Revd. M. Duclos and myself bade adieu to our confrères at Singapore, and sailed for Cochin China on board a large boat which I had two years previously caused to be built. The crew were all christians. The Nakodah or navigator of the boat called Gâm, aged about 32 years, was a man bold and ready to undertake every thing, even at the risk of his life, for the service of the mission. He had six hands on board; I had besides three students, who had been sent to our college at Pulo Pinang; a large quantity of stores and a sum of money, the amount of the alms from the association of the Propagation of the Faith. The voyage was rather a dangerous one, owing to our light boat; we had a few strong squalls and were pursued, for four days, by a Chinese Junk, which seemed to be manned by Pirates. The Cochin Chinese boats lay closer to the wind than the Chinese Junks, and this is what saved us. On the 6th. June, we were off the Cape of St. James called *Con gio*. A contrary wind prevented us from entering this port during the night of the 6th.—we spent the 7th. day in keeping off and on close to the port, and the night being come, we run the risk of passing the Custom House. Circumstances were not favorable: the wind was still contrary; the tide was low and our way was protracted: yet we had passed the Custom House and thought ourselves out of danger, when we saw a boat at anchor on the right side of the river. She was, as we suspected, a Custom House boat on watch; we tried to avoid her by going to the opposite side: but she saw us through the light of the moon, which then shone brightly, and pursued us by pulling after us in a small boat, which soon overtook us. Five soldiers, who acted as Custom House officers, came on board, M. Duclos and myself were shut up in the bottom of the boat. The light was ordered and the boat visited. It was soon known by the sails and the masts that the boat had come from Singapore, and the Nakodah was obliged to acknowledge what he could not deny. “This boat comes from Singapore,” said the Custom House Officers; “acknowledge also that she has on board “*Chinese*”;—this is a way of speaking to signify “Opium”, because

the Chinese usually import it into Cochin China, and almost all the Cochin Chinese boats, which go to Singapore, return loaded with the drug. We feared not to be arrested on account of this fraudulent trade; but we were ourselves "contraband", and, looking for opium, they finally found our hiding place. In spite of the night and our vestments, in every thing like those of the country, we were easily known as Europeans, so easily that I have always believed that information of our coming had been given to the Custom House by the Nakodah of the Chinese Junk, which reached this port two days before, and also was coming from Singapore, as I have learnt since. The Custom House officers said that they watched the port more strictly than usual for two days and visited all the boats, which passed by, because the king had lately published a decree to this effect. Afterwards they also gave as a reason that some Chinese having a law suit on account of opium, which they had succeeded in passing, they were afraid lest they should be blamed for not having been more cautious; but I think that they hid from us the true reason. Be this as it may—our capture was effected: which divine Providence had ordered or permitted; but being caught, we had to submit to all the consequences thereof. Our people tried to redeem us with money. After some difficulty the band of soldiers received a few silver bars and consented to withdraw. We were a little hopeful and continued our way still slowly, the wind being contrary and the tide not serving.

At day break the fatal boat reappeared; the five men came up again and returned our money, saying that they could not settle an affair of this importance, and that we should go to the head of the Custom House and settle with him; that they themselves being simple soldiers dared not and could not take upon themselves the responsibility with which they would be loaded, in case it should be known that they had let us pass. A large amount of money was offered them, but without success. They declared that they would not leave our boat until they had brought us to the Custom House. It appears that they had already informed the head of "the Custom House" of all the particulars, and that he had sent them in search of us with orders to bring us without delay. He was a man lately raised to the office of Captain and put in charge of this Custom House: he was timorous and feared above all to lose his situation, should he act too leniently towards us. We had only to expect severity from him. He called our Pilot, loaded him with a *Cangue*, came to visit a portion of our baggage, and refused every offer we made him. He ordered his soldiers to keep us securely; while he despatched the news of our arrest to the

great Mandarin of the Province. We were distant from him two days' journey by the river: we were ourselves soon sent to the capital of this Province, called "Gia dinh". It is the most considerable Province of this portion known under the name of Lower Cochin China or "Dong Noi". Here is the town of Lai Gou, formerly built a little in the European style; but it was destroyed when taken by the rebels in 1835: it has been rebuilt, but most wretchedly. It seems that the great Mandarin of the Province was not an enemy to the christian religion, and that our arrest caused him more grief than pleasure. He had often been at Singapore and Batavia, and seen there the Europeans living in a grand style and conceived a high idea of them. He was one of those Pilates of whom Cochin China is full: when missionaries are delivered over to them, they judge and condemn them, whilst at the same time acknowledging and proclaiming their innocence. They always have in their minds: "If thou wilt let him go, thou art not the friend of Cæsar." As to the king, he is a Pharaoh who fears lest christians multiply themselves in his kingdom, and that in case of war with European powers, they join his enemies. In consequence he does not spare them his vexations. In regard to missionaries he says: if we leave them quiet and free, all will go after them and embrace their religion; then the Europeans will come and take possession of our country, as they have done in other places. "*Et venient Romani et tollent nostrum locum et gentem.*" Ming Menh added as Caiphas: it is better to put them to death than to see all the nation perish: "*Expedit ut unus homo moriatur et non tota gens pereat.*" His son and successor, more timorous, fears lest the death of a missionary, being known to the Princes of Europe, may hasten his ruin; he does not then put them to death; but he vents his anger upon his subjects, who introduce them into the country or conceal them. He still lets the severe edicts issued against Europeans subsist and he would that people should think that he mitigates them only through an effort of his royal clemency. These brief observations will be of some use in explaining the conduct of the Mandarins and of the king on our trial. I continue my narration.

I must say to the praise of the great Mandarin of "Già dinh" that he treated us as leniently as he could. As soon as he learnt that our boat was arrested, he sent his Secretaries to take in writing our declarations to dispatch them to the king. This spared us the trouble of appearing before his tribunal and of being obliged to answer a multitude of intricate questions and of suffering the tortures these questions usually draw after them. We declared that we came from Sin-

gapore to preach the true Religion, that we had reason to believe that it was no more prohibited in Cochin China, as it was allowed in China by a public Edict of the Emperor, and this Edict had been sent by him to the king of Cochin China, who is his vassal. We said what we liked: the whole was written without difficulty and the dispatch was forwarded to the capital. We were brought with our baggage, in the midst of a multitude of curious persons, to the house destined for Mandarins when travelling. The Pilot and the crew of our boat were put in another prison; we could never communicate with them. No one was allowed to approach us, and the christians especially were strictly prohibited,—then a great fear was spread among them: they had reasons to fear the vexation of the Mandarins, being suspected to have called us to them. Often spies have been sent to examine whether some movement was discovered among them; but this had no ill consequences: nothing could be made out that might compromise any one. We feared above all for the Revd. M. Miché, who had retired to “Lai Thien” in the same Province: he had some sudden fears, but I think that he is left more quiet since my departure.

On the 21st of June the Revd. M. Duclos was attacked by a fever which soon caused alarm. I had few European medicines; I had then recourse to those of the country. The great Mandarin, who always seemed to take an interest in us, gave orders that medicines of all descriptions I might require, should be supplied. He would not allow the Physicians of the country to attend on my “confrère.” In vain I observed that I was not acquainted with medicines, especially Chinese; I was obliged to act as if I had been. I only used a few plants of which I knew the virtue and efficacy in similar complaints. But the Revd. M. Duclos’ complaint was of a nature not to yield even to the best remedies. To the dysentary was soon added a sort of brain fever and I saw that there was no hope. I then warned him to prepare himself for the great passage from life to eternity; which warning he received with joy. All his life had been a preparation for death, and he could not meet a better opportunity to appear before God than the moment in which he was a prisoner for the faith. He joined me in reciting the prayers of the dying and gave up his soul to God on the 17th July. One may easily conceive how painful it was to me to see my companion in captivity taken away from me, he who had been my fellow student in the University, and who promised to be an indefatigable labourer for the mission of Cochin China, to which he had devoted all his affections,

But God has disposed otherwise: let his Holy name be blessed for ever!

The magnificent monument King Gia Long ordered to be erected for the Right Revd. Dr. Pigneaux, Bishop of Adran, still exists, though now there is no watch over it as formerly: it is not far from the Town of Sai Gon. I asked that my friend should be interred in the inside of this Monument. The great mandarin granted my request. The services which were formerly rendered by a Frenchman to King "Gia Long" were remembered with pleasure. It was indeed a striking contrast to see the grandson of this Prince sentencing to the chain two other Frenchmen animated with the same spirit as Mgr. d'Adran. Several mandarins mourned it; for the King's edict had just arrived and it appeared that M. Duclos and myself were to be brought to the Capital fettered with chains by the neck, and judged according to the laws. I then hastened to render the last duties to my "confrère" and they allowed me liberty enough to effect this. I adorned the corpse with all the sacerdotal vestments, and it was placed in a beautiful coffin and borne to the grave by a band of soldiers.

As soon as the Revd. M. Duclos' funeral was over, they thought of forging irons for me and sending me by boat to the Capital with all my baggage. I left *Sai Gon* on the 20th. July, being led by two Captains and a band of soldiers. Our voyage, which lasted fifteen days, was signalized by no extraordinary event. I was not inhumanly treated by my conductors. The European has something that commands respect from the people of this country. They generally excuse themselves for being compelled to execute the orders of the King in what is disagreeable to us.

On the 6th. August I was led to the *Tribunal of the Tortures*. Up to this moment I had avoided to make myself known as the man who had been formerly brought before the law, then sentenced and reprimanded in the preceding year. I feared a little the moment when I would be obliged to appear before my former judges and be infallibly recognized. True, on my arrival several persons cried out: "He is the man we saw last year"—others doubted about it: for, having cropped my beard, my features appeared different. To let them remain in perplexity, I gave them only evasive answers. "Think well about it," said I, "all the Europeans are like each other more or less: those who are not accustomed to see them, may easily confound them. If you all say that I am he who appeared here last, in vain would I deny it, you would not believe me: examine and decide the question."—In the preceding year, I had only declared

my christian name; and this year I gave my surname: this was a new difficulty which they could not solve. They insisted on my confessing the truth, and to excite me with more efficacy to do so, they promised to release me. All these reasons had little effect on me: the Mandarins were to order that all the persons who had seen me oftenest and my former companions in captivity should be sent for, to ascertain whether they could recognize me. Being unwilling to excite uselessly too great a commotion, I clearly acknowledged that I was the man of last year, and that I would unreluctantly submit to the penalty reserved for those taken again in the same fault. The king was soon informed of this fact. He fell into a violent passion on hearing it: "What does he come to do here?" he cried: "let him be asked whether he has parents at Sai Gon whom he comes to visit and let his head be cut off." This was said at the first movement; for on the following day he gave his orders in writing, and he let it be understood that his intention was that I should not be put to death, yet the Mandarins were ordered to meet in a solemn audience to address me a few questions. The first and the most often repeated was this: "why, after having been last year reprieved by the king from the penalty of death, have you still dared to come to this country?" I then remembered the answer formerly given by the Apostles, when after having been arrested by the Jews, it was told them: had we not forbidden you to preach this religion? "The Lord of Heaven," said I to them, "commands to preach the true Religion in all the countries of the world: wherefore in spite of men's prohibition, I was bound in conscience to come back to teach it,—besides," I added, "I had reasons to believe that it was no more prohibited here. It was indeed formerly prohibited, when it was believed that the ministers of religion plucked out the eyes of the dying persons and many other similar calumnies; but now the truth is known,—no one gives any more credit to all the infamous reports spread against the missionaries. Thus in China the public exercise of the christian religion has been allowed, and the Emperor's intention is that it should be likewise allowed in all the countries tributary to China; having sent them the Edict relating thereto: it is astonishing that here you do not conform to it." The Mandarins interrupted me saying: "Why did you not go to China since you knew that the Catholic religion was allowed there?" "I had a special affection for the christians and even the pagans of this kingdom, knowing their language and customs, and besides I had a special mission for this country." "Has some one obliged you to

"come back?" "No: I have come through my own will." "Does the king of France send you?" "No: he only allows me to go whither I like." "Has he been informed that you had been released last year?" Yes: because one of his vessels has come to claim me—I have heard say that he rejoiced on account of my happy release." "Does he know that you have come back?" "Not yet: but he shall know it." "How?" "My arrest will become public, the Journals will mention it, and all the people in Europe will know it." "Let him be tied up by the sticks," said the great Mandarin, in a tone rather timorous: three sticks were brought in, one to tie up both hands together, and the others to tie both feet separately. It is in this way that all the criminals are tied up when they are under examination and the lashings of the bamboo. I was thus tied and prostrated to the ground ready to receive the lashing. A soldier held in his hands the bamboo, while the interrogation was continued. "You are going to Sai Gon: to which village and to which house are you going?" "I had no determined post: having reached christian villages, I would have stopped in the house whose owner would have consented to harbour me." Who has given you the money which you carry along with you?" "The christians of Europe who send alms to relieve the misery of the christians of these countries; for religion teaches thus to exercise charity towards every one, and to consider all men of all countries as brethren whom we ought to love and relieve." "You do not then fear lest you may be put to death?" "I would fear to suffer death as a malefactor; but to die for the sake of the true religion, this is rather to be looked for than to be feared." "But see the evil you cause: the Pilot of your boat will be put to death: all the crew will likewise suffer death." "Let those who put them to death assume the responsibility thereof. I come hither only with the view to do good: is it I that shall sign their sentence or cut off their heads?" They came again to the first question: "With what view have you come back again?" "I have already told it to you: I do not understand why you are reiterating these questions." I then raised my head to look at the Mandarins' faces, and read in their eyes that they suspected me to have come to excite some rebellion among the christians and perhaps to prepare the way for an army of Europeans. Then I loudly said, "I have not come hither to make a war or excite the people to an insurrection: I have neither the will nor the power to do so. I have studied religion from my infancy, and during all my life I have been occupied with religious of-

“fairs: I know nothing else, and am not acquainted with worldly affairs,—surely if you had known me better you would not have had such strange thoughts about me.” This reason appeared to satisfy them, and they said one to another: “He has come to teach religion.” They ordered we to be loosened and seated at a respectable distance, while they continued putting many questions, but less important and urgent. I cannot remember them all: true they are almost similar to those mentioned above;—fatigued by so many questions, I felt quite weak and begged leave to withdraw. Then the Mandarins went to take my answers to the king who was, it appears, satisfied with them. I have never been ill treated since.

In the fear lest a European vessel should soon come to ask my release and that of the men of my boat, the King ordered that my cause should be terminated within fifteen days: otherwise it would have lasted at least three months. After having heard and examined superficially my depositions, they hastened to pass the sentence. It was excessively severe, and yet in accordance with the laws of the Country. We were all to have our heads cut off without any delay. The King confirmed it only with regard to the pilot: but as to me and the crew we were reprieved until further orders, that is we were not to be put to death. According to the sentence issued by the Mandarins, all that belonged or was thought to belong to me, was to be confiscated for the Royal Treasury, but the King dared not admit such a clause. He knew well that he would be, on some future day, obliged to return every thing willingly or by force: he then ordered that all my property should be carefully kept, and that ten dollars should be given me monthly, out of my own money, for my food and other expences: which was duly executed until my departure for Singapore.

We owe this caution and royal clemency to the Captains of the French Navy, who have come to Touron to claim the Missionaries who had been incarcerated, and especially to Admiral Cecille, by whom they were sent.

DOMINIQUE LEFEVRE,

Ev. d' Isauropolis Vic. Apos. de la Coch. Occident.

TEMMINCK'S GENERAL VIEW OF THE DUTCH POSSESSIONS IN THE INDIAN ARCHIPELAGO.

A WORK recently appeared in Holland under the title of "Coup d'Oeil General sur les Possessions Neerlandaises dans l'Inde Archipelagique," and as the circumstances under which it has been written, no less than its own merits, give it an unusual claim to attention, we shall lay the more important portions of its contents before our readers. It may be received as containing that view of the policy pursued by Holland in her eastern empire which her government is desirous of impressing on the world. The author (M. Temminck, Director of the Royal Museum of Natural History at Leyden and a distinguished naturalist) states in his preface that a large proportion of the facts contained in the work have been derived from official documents, to which he had received access from the Minister of Colonies; and from the manner in which he alludes to the strictures of the English, German and French presses on the colonial policy of the Netherlands, and particularly to what he terms the diatribes of Raffles, Crawford and the Singapore newspapers, there can be little doubt that the Coup d'Oeil has been compiled with the concurrence of the government, and is intended as a vindication of that policy. What confirms the surmise is the fact that the book was advertized in May last in the *Javasche Courant* (the only newspaper that is published in Netherlands India, and, it is hardly necessary to add, an official one) and the attention of the public directed to it, by the General Secretary to Government.

Although we are very far from approving of many of the features of the policy which M. Temminck seeks to justify, we deem it just not to mar the effect of his vindication by any running comment.

The first chapter is a precis of the modern history of Java. As a considerable portion of the facts contained in it are already before the English reader, in the works of Sir S. Raffles and Mr. Crawford, we shall pass at once to the more novel and interesting contents of chapter 2nd.

PRESENT ADMINISTRATION, CULTURES, AND FINANCES.

After numerous essays, more or less happily combined the one than the other, our government has been convinced that a nation cannot hope to be truly prosperous and powerful, unless her inferior classes are happy, and have enough of work and the means of provid-

ing for their chief wants ; for, on the fulfilment of these conditions depends the duration of its greatness ; in short that the empire of Holland could not be solidly maintained in its vast possessions, without the attachment which the native population bear towards their European masters. So, we now see government adopt a system of culture, and a manner of levying direct and indirect taxes, as appropriate to the state of civilization in which the Javanese are found, to their customs or *hadhat*, * and to the wants of the population, as all these essays successively tried have been able to indicate. The surest means of firmly establishing our power in these beautiful countries, formerly exposed to so many murderous wars, and a most revolting despotism, is to render the population more active, less given up to that indolence, the result of the slavish condition in which the native chiefs formerly held them ; above all to increase their well being by agricultural industry, while respecting their customs, and maintaining their usages. By adopting these rules of conduct as the basis of its administrative system in the Indian Archipelago, government will see prosperity extending every where throughout its wide dominions, and the wellbeing of many millions of inhabitants will be to it a pledge of their fidelity.

And, in what other manner and by what other means, can a small European state, which scarcely reckons three millions of inhabitants, nourish the hope of exercising its predominant influence, and succeed in firmly establishing its power, over this immense eastern population, of which the entire amount of all the islands covered by its flag probably reaches to twenty five millions of souls, and where the number of the inhabitants of the metropolitan country alone, the islands of Java

* *Hadhat*, according to the Javanese pronunciation, is a word of Arabic origin, *adat*, which signifies, *usage, custom, institution* : See S. Muller, *Bijdragen tot de kennis van Sumatra* p. 114. We preserve in this work the original orthography, generally employed in official documents. The *Hadhat* or *adat* are the unwritten laws which the Javanese possess by tradition. They are the customs of their ancestors, transmitted from father to son, or rather the old regulations of sovereigns which have acquired the force of law, and which like every thing that is ancient, inspire the highest veneration in the people. All that has reference to the ceremonial of the Courts of Surakarta and Djokjokarta is regulated by the *adat*. These ancient customs are observed with the same punctuality, and followed with the same rigour, at the Court as in the meanest village. *Adat* holds the place of fundamental law with the Javaese ; not to conform to it is to fail towards that which is the most sacred, and the most generally revered. M. de Steurs tells us, relative to this veneration of the Javanese for his *adat*, that a Malay manuscript contains these remarkable words, which, says he, every European functionary should have unceasingly present in his memory : *If he does not know our adat, he shall be a horror to us.*

and Madura amounts, according to the most recent census, to more than nine millions of persons.

The pages which follow will serve to give a clear idea, a summary exposé, of the institutions in vigour in Netherlands India: they will be accompanied by the indication of the principal results obtained by the new system of cultures.

The islands of Java and Madura are divided at present into 22 provinces or prefectures, known under the names of RESIDENCIES.

[See Dr. Bleeker's Contributions to the Statistics of the Population of Java p. 75 ante. where the names of the Residencies are given, with the latest census, that for 1845, shewing a population of 9,542,045; being an increase on that for 1838, given by M. Temminck, of 1,438,965.]

We find that the census for 1824 was only 6,368,090 souls; that of 1832 amounted to 7,323,982; in 1834 we find 7,511,106; and in 1837 the number was 7,981,284 souls. No more recent census than that of 1838 (8,103,080 souls) has yet been made. [See the table of that of 1845, *ante* p. 75, shewing the population of each Residency, and the numbers of each Race.]

The population of the town of Batavia, in 1832, was nearly 118,000, and is divided as follows:

Europeans,	2,800
Chinese,	25,000
Natives,	86,000
Moors and Arabs,	1,000
Slaves,	9,500

Batavia, the ancient Jakatra, upon the banks of the large river of Tjiliwung, has always been and continues to be the capital of all the possessions of the state. I would not have made special mention of it in this work, considering the many good descriptions, published in many languages, of this town and its environs, if I had not to rectify the error committed by some French authors, who attribute to Governor-General Daendels the ruin and the abandonment of this town. The fact is, that this abandonment had already commenced before his time, three fourths of the Europeans having quitted the walls of the town, to fix themselves in the suburbs, which daily increased and thus formed a new town. A part of the officials and of the garrison were however obliged to remain in the old town, because the citadel, situated on the south shore of the sea, was the seat of the central administration. It was there that the place appropriated for meetings of the Council of the Indies was always found, as well as many offices

and some public institutions, which rendered the preservation of the old town necessary. These obstacles were removed by General Daendels, who caused the old citadel and the greater part of the edifices it contained to be demolished, and new public buildings to be erected in the extensive suburbs, which now stretch in a radius of two leagues from the old town; this determined the abandonment of the latter as a place of residence. We only now find there the Government and commercial warehouses. A long street contains all the commercial establishments, such as the bank, and the bonded warehouse, the exchange, &c. From 9 in the morning until 4 in the afternoon, this street is animated by the presence of a considerable crowd, who come to make their purchases and sales. Later, every one returns to his house in the suburbs, and the most profound solitude succeeds to the bustling scene of the forenoon.

Thanks to the sanatory improvements begun by General Daendels, neglected by the English, but actively renewed under the administration of Baron Van der Capellen, and of his successors, the town of Batavia, or rather the immense village, which it is usual to call town, now enjoys a salubrious air; in its purified environs the servants of the English company come to seek health after a long sojourn in British India.

The roads of Batavia are as safe as they are beautiful; they are strewn with a great number of small islands; the principal is Onrust, where are situated the dock yards of the marine; the others bear the names of some towns of Netherlands.

I do not make special mention of the statistics nor of the chief places of the other 21 residencies of the island of Java; many French works may be consulted on these matters. The notices given by M. de Baldi in his abridgment of geography, edition of 1844, offer on these heads a very exact precis, which he obtained in substance from our Minister of Colonies.

The interior administration of each of the provinces has preserved, as much as could be done, the forms established by the ancient Javanese Sovereigns.

The villages (*desa*, more correctly *dhésa*) are administered by a chief, assisted by a municipal council, composed of the oldest and more respectable of the inhabitants. The commune has the power of electing its chief, subject to the approbation of the superior authority. The chiefs of communes (*Petinggi* or *Bekel*) are in direct connexion with the chiefs of *arrondissement* (*Dhemang*). In those parts of the island, a certain number of villages form a division of the

arrondissement, and in this case the communications take place thro' the chief of the principal village, who then takes the title of *Pannatoes* or centurion. This mode is, however, entirely spontaneous on the part of the natives ; it is tolerated but not authorized by government.

A determinate number of chiefs of *arrondissement* (*Dhemang*), are subject to a regent or superior chief (*Adhipati*), who is the highest of the Javanese administrative hierarchy. The territory over which the authority of a regent extends is known under the official name of regency (*Kabupatén*), and the regents bear the titles of *Pangeran*, *Adhipati* or *Toemenggoeng*, according to the importance of their functions, or according to the services which they have rendered ; the title of *Pangeran* or Prince is given to a regent of high birth. The regent is excluded from all participation in the financial administration ; but he is the mainspring in all that has relation to the cultures, to the police as well administrative as judicial, and generally in all that can relate to the well being of the natives, whom he is charged to represent with the government.

The regencies (*Kabupatén*) are formed, almost without exception, of the territorial divisions formerly prevailing in the country. The nomination to regencies, although revocable (the government reserving to itself the right of changing and suspending) is almost without exception nearly hereditary. This custom is followed with the double end of attaching the Javanese aristocracy to government, and to disturb as little as possible the order established in the hierarchy consecrated by the *adat*. In this important charge, the son, if he has the requisite capacity and qualities, usually succeeds to the father. In default of male children a fit choice is made amongst the other members of the family ; and it is only in default of a collateral who is competent that an individual belonging to another family is invested with the vacant regency.

Several of these regencies, usually three or four, form a province, a prefecture, or as it is called in Java, a *Residence*, placed under the authority of a European prefect bearing the title of *Resident*, in whose hands all the powers are united. He is assisted by a secretary, and some European officers. He is represented by Assistant Residents in localities at a distance from the chief place ; these last are under the orders of European comptrollers ; all act in concert with the Javanese chiefs without shackling the action of the native authorities as it is established by the government according to *adat* ; see-

ing that the principal tendency is to preserve intact the national institutions of the Javanese. According to this mode the organization of the commune rarely requires European intervention. The interior administration of the village (*desa*), the subdivision of the land tax (*padjeng*) and of the personal services required in the public service, are exclusively confided to these municipal authorities. The European authority only takes cognizance in case of complaint or opposition. The chief of the village is at the same time the receiver of the land tax; he pays his receipts into the hands of Javanese collectors who make their returns to the treasury of the province. The tribunals are, as far as they can be, composed of Javanese, so that the principal interests of the native population are confided to themselves; the European authority only interferes with a moderating and directing power.

This organization, as simple as efficacious, is in every point in harmony with the manners and the institutions of the Javanese, which renders all recourse to force unnecessary, and which insures the perfect action of all the regulations of finance, police and justice.

In the provinces of Batavia, Buitenzorg, and Krawang, where the public lands have been sold to private persons, the hierarchy above described has been obliged to be modified. The Javanese aristocracy and the municipal institutions have there disappeared under the irresistible influence of the interest of the great proprietors, the fiscal tendency of whom is not, like that of government, modified by political considerations of a high aim. The great proprietor, and there is found amongst them those who possess the lands of forty thousand Javanese inhabitants, consider the municipal organization, such as the government respects, an obstacle to the full use of the resources of his territorial possessions and of the profit which he can draw from an unlimited management. He admits no one intermediately between him and his cultivators. Under such an administration, the villages have become simple collections of cultivators no longer enjoying the privileges of Javanese villages; the village heads have become the hired servants of the landlord; the regents or chiefs of the district, where they have been retained, have descended to the rank of salaried overseers stripped of all prestige. In fine the hierarchical chain which links the two extremities of the primitive Javanese society has disappeared, and a new state of things has succeeded to it, of which the good result is very problematical: in as much as the application on a very large scale of the system of selling the lands of the state to Europeans

will undoubtedly excite a general discontent amongst the immense Javanese population, above all amongst those classes who are at present the most firm supporters of power, and the most devoted auxiliaries of the European authority.

The institutions and the *adats* do not in any manner admit of individual property in the soil. Each commune possesses, since ancient times, certain portions of ground over which it exercises recognized rights. The members of the commune enjoy these lands by a usufructuary title according to the ancient usages of the country; they pay for their use in the produce of the cultivation or in money. The artificial irrigation of those which are destined for the cultivation of rice by *Sawah*, having required the united efforts of all the inhabitants of the village, these lands are considered as common property, certain rights of the first clearers excepted. Those rights which are transmissible have a certain determined selling value, and the enjoyment is subjected to important conditions. The labours for the service, whether for the village or the state, fall exclusively upon the possessors of rice fields which are of a nature to be artificially irrigated. When the other inhabitants of the village take a part in these labours, which is always the case, this co-operation is the result of a stipulated arrangement according to the custom followed in each locality. If, for example, a coffee plantation must be established by the commune, the tenants of the *sawah* rice fields are those upon whom according to the *adat*, fall the obligation of the labours; but when the other inhabitants of the village take a part in them, they are indemnified by the former.

The privileges of communes and the rights of clearers do not prevent the sovereign from acting as master of the soil; if he desires to appropriate a part of the lands of a village, even those which are cleared lands, in order to turn them to some purpose of public utility, no one has the right of opposing him. It is nevertheless customary, and the usage is sanctioned by the *adat* without which it would never be known, that in such case the sovereign grants an indemnity, of which the amount is equivalent to the necessary expenses of new clearings.

Under the rule of the native sovereigns the irrigated lands were distributed into *tjatjah*,* literally *parcels*. The taxes, the public services and the *corvées*, rested upon the tenant or the chief of the

* The substantive *tjatjah* is derived from the verb *natjah*, to cut in pieces. The average number of a *tjatjah* is calculated at 22 persons.

parcel. When the prince wished to specify the resources of a province, he mentioned the number of *tjatjah* which it contained.

In the course of time the tenants of the registered parcels, or as they are termed, the chiefs of the *tjatjah*, seeing their small domain extend itself insensibly and to augment the number of individuals placed in dependence upon them, the reciprocal relations and rights assumed fixed and legal forms, modified according to local circumstances. These individuals who depended on a *tjatjah* into which they were admitted assisted in cultivating the lands belonging to the family, and they were bound to render to the chief a portion, often the half, of the produce; finally they performed the *corvées* with which the chief of the family was charged.

Notwithstanding the modifications which the progress of agricultural industry has been able to bring to these primitive institutions, and in spite of the very natural tendency of the dependants to free themselves from the ties to which they are subjected, and to aim themselves at becoming chiefs of *tjatjah*, this organization of the Javanese society is generally maintained and exercises even at the present time a preponderating influence upon the relations which exist between individuals.

These details, which we could not properly lengthen without departing from the design adopted for this work, serve to make apparent that it would be very impolitic, and even dangerous for the king's government in India to put itself in direct connection with each of its officers.

The individuality of communes is found to be the only efficacious method of counteracting this inconvenience, and the sole means which we are permitted to take not to shock the national prejudices, so firmly rooted in the mind of this numerous population. It is also the great motive which has served as the fundamental basis of the system at present adopted, and which is found actually in vigour.

The amount of the land tax is consequently fixed by the communes. The amount is not the result of an operation founded on an exact register of lands, but rather of an agreement voluntarily concluded between the agent of the treasury and the elders of the commune. This manner of assessing the tax is without doubt prejudicial to the king's treasury, but he is prudently satisfied with that which he can obtain without too much affecting the independence of the village administration, persuaded that this is the national institution to which the entire popula-

tion attaches the greatest value. If the State interferes it is through the judicial power; but it would not wish to act except in cases of delict, consequently in a manner in some sort negative. Let us make it our wish that the government of the king will be led to avert for a long time from these flourishing countries a middling revenuial spirit, and that the local authorities will never be induced to abandon the wise line of conduct, followed until now in the financial organization, and adopted for our possessions in the Indian Archipelago.

We now demand of the detractors of our colonial institutions, if they can advance, with any foundation, that such a system of land tax merits the name of vexatious? Is it just to assert that the Javanese is a slave; that he labours under the yoke of the *corvée*; finally that he is allowed no part in the direction of the public affairs?

No, the land tax is not vexatious, but it would run the risk of becoming so, if it had been judged proper to maintain the organization established during the English occupation, and according to the principles adopted by Sir Stamford Raffles, who originated the regulation of 11th February 1814; an ordinance, which, while lavishing merited eulogiums on the village organization, positively enjoined on the officers the introduction of land registration, and personal assessment. This system called *ryot-war settlement* in Hindoostan, there mercilessly exercises its disastrous effects; in Java it would have led infallibly to the subversion of the national institutions, in order to replace them by the system of levelling and pressure which is a merited reproach to the English in many parts of the continent of India; in order to be convinced of this truth we have only to read the classical work of M. Barchou de Penhoën: *L'Inde sous la domination anglaise*.

No, the Javanese is not a slave; he does not labour under the yoke of the *corvée*. On the contrary he disposes freely of his person. He is in no manner bound to the soil. He changes his residence at pleasure; but, when by being inscribed as a member of a village, whether by his birth or as the consequence of choice, he attaches himself to a *tzatjah*, he becomes subject to customs which regulate the village or the family. If he is possessed of fields of irrigated rice (*sawah*), he is under an obligation to conform to the conditions under which these fields have been originally cleared or acquired under an onerous title. These conditions carry with them the obligation of taking part in the labours ordained by the government; he is not, in conforming to them, more subjected to the yoke of the *corvée*, than is a subject of a con-

situtional State in Europe, in submitting to the military service required by the law.

No, it is not just to say that the Javanese does not obtain any share in the direction of public affairs. The internal organization, established by his former sovereigns have been preserved to him in a manner intact. The uninterrupted hierarchy of Javanese functionaries descends from superior chief or regent (*Adhipati*), to chief of the village (*Petinggi* or *Bekel*), and this last with the *tjatjah* and the elders, enjoy a liberty of action which we vainly seek for in countries better endowed in relation to public liberties. We shall be able to judge of this more completely when mention shall be made of the judicial institutions.

We now pass to the superior direction of our possessions in India. It is confided to a Governor General, Lieutenant of the King; he is furnished with very extensive powers, and is invested with the command in chief of the army and marine, in all parts of the Netherlands possessions. He alone decides on the measures to be taken; for experience has shewn that interests so important and so varied as those of which he ought to take cognizance, demand the most perfect unity of will and action. At his side is placed the Council of the Indies (*Raad van Indië*) composed of a vice-president and four members nominated by the king. The Governor General is required to consult this assembly in all important cases. The title of laws and regulations ought to mention that this formality has been observed. In certain cases the Governor General is required to communicate to the Government of the king the dissentient advice of the Council of the Indies. The Governor General is in direct correspondence with the residents of provinces and the governors of the great dependencies. These great dependencies are Sumatra, Borneo and Celebes; * in these three principal Islands as well as in Amboyna, there are Governors charged with special interests, and under the orders of whom the Residents exercise their functions. All these functionaries are, in their quality of Lieutenant of the Governor General, invested with the necessary powers to act in all urgent cases which arise, and which cannot admit of the delay of a reference. When the king judges it convenient to name a Lieutenant Governor, he has the precedence of the members of council. The king can also delegate powers to one or more Commissaries-General, but these cases are extraordinary.

* M. Temminck of course alludes to the Dutch possessions in these great Islands.—ED.

We have already mentioned the judicial organization. Some additional details will not be deemed superfluous.

The action of the judicial order is independent of the administrative power, saving the restrictions suggested by necessity to prevent the indigenous aristocracy from being disquieted by too severe an application of the forms of European procedure, which would be contrary, according to their maxims, to the exceptional state in which they still find themselves in the social order of the Javanese.

A high court sitting at Batavia clothed with the functions of a court of appeal and cassation, after the courts of justice established in the principal towns, takes cognizance as well in civil as in criminal matters of the interests of the European population. These courts are guided in their decisions by the Colonial statutes and by the ancient Dutch laws, based upon the civil law. At this moment the finishing touch is being put to a labour having for its object the replacement of this superannuated and incongruous legislation by the modified codes in operation in the kingdom of the Low Countries, always maintaining in civil matters the authority of the special laws appertaining to each locality.

The indigenous inhabitants are subject to tribunals composed entirely of natives, but presided over, in the cases indicated hereafter, by European functionaries. These tribunals are the district tribunal (*Districts raad*), the tribunal of the regent (*Regent's raad*), presided over by the Javanese Regent, the provincial tribunal (*Land raad*), presided over by the European prefect or his delegate the Sub-Resident, finally the tribunal of circuit (*Regt bank van Ommegang*), composed of Javanese assessors and a European judge, who is continually on tour, for the purpose of presiding at these assizes. This last tribunal only entertains criminal causes which are above the competency of the provincial tribunal. All these tribunals judge according to the local laws, whether Mahomedan or other,—mutilations and cruel executions being proscribed. A Mahomedan priest (*panghulu*) is present in order to enlighten the judges upon the sense of articles of the Koran and its commentators. The ministerial functions are confided to a Javanese officer named *Djaksa*.

The Supreme Court sitting at Batavia is charged with the revision of the sentences pronounced by the provincial and circuit courts, in order that by this means an uniform and equitable jurisprudence may be insured.

In the three principal towns of Java, as at Amboyna, Banda, Ma-

cassar, and Ternate, there are Chambers of Orphans which have agents in the other residencies comprised under their jurisdiction. The college charge themselves with the administration of all estates from which they have not been expressly excluded by will, but they do not occupy themselves with insolvent estates, for which there is a special functionary under the name of Sequestrator. It remains to speak of some other powers established under the authority of the Governor General. We shall limit these details to a very succinct recapitulation.

The finances with all their ramifications are confided in each province to the Resident, who places a certain number of European controllers in order to verify the accounts of the Javanese collectors. The secretary of the province discharges the functions of treasurer. The general direction is exercised under the authority of the Governor General by a Director General of finances officially charged with the administration of the public treasury, and by three directors of whom one is for the Ways, Means and Domains, another for the Material service, and the third for Cultures. * These functionaries form, under the presidency of the director general, a council

* As the exact nature of the functions with which the Directors are clothed does not appear from the text, we shall give an explanation of them taken from the *Almanac en Naamregister voor Nederlands India* for this year.

The general direction over the domains, goods, monies, receipts and expenditure of Netherlands India is (subject to the surveillance of the Head of the Government) entrusted to the Director General of Finances (*Directeur Generaal der Financien*.)

This chief functionary (*Hoofd-Ambtenaar*) with the Director of Means and Domains (*de Directeur der Middelen en Domeinen*), the Director of Produce and Civil Warehouses (*de Directeur der Producten en Civiële Magazijnen*), and the Director of the Cultures (*de Directeur van Cultures*) form jointly the Council of the General direction of Finances &c. (*Raad den Generale Directie van Financien*).

Each of them is entrusted with particular duties; amongst the principal functions of the Director General are

- a. The General superintendence of goods, monies, receipts and expences.
- b. The management of the Government Treasury in general.
- c. The keeping of the general books.
- d. The preparation of the budget of receipts and expences, and the annual Government account.
- e. The coin.

DIRECTION OF THE MEANS AND DOMAINS.

To this direction belongs principally.

- a. The management of the import and export duties in general.
- b. Commerce and Navigation.
- c. The Farms,
- d. The Imposts,

in which all affairs of a general interest are treated of, whilst the special matters of each branch remain devolved on the director, without requiring a preliminary reference to the council.

The director of cultures has under his orders many inspectors who have the duty, independently of some others, of verifying upon the spot the origin or the accidental causes of unfavorable results to one or other culture, which the comparative estimates serve to establish in a province or in a district: he ought for this end to put

- e. The Auction Department.*
- f. The Stamps.
- g. The duties on Successions and Transfers.
- h. The general management of the Tin mines, Birds nests, and Salt, until their delivery into the Head Depots.
- i. The sale of Government lands in general.
- k. The Pilotage.

DIRECTION OF PRODUCTS AND CIVIL WAREHOUSES.

To this direction belong principally,

- a. The management of the produce of the lands.
- b. The providing the necessary goods and provisions by distribution from the godowns, or through farms and contracts.
- c. The collecting and selling of goods and produce.
- d. The superintendence of the lading and chartering of vessels.
- e. The administration and the sale of the Salt delivered into the Chief Depots.
- f. The superintendence of all Government water works, civil buildings, timber yards, and wood saw mills.
- g. The superintendence of the construction—godown [civil and military arsenal at Surabaya.]
- h. The management of the Post office.
- i. The government printing office.
- k. The trade to Japan.

DIRECTION OF CULTURES.

To this appertains,

- a. Rice culture.
- b. The land revenue, as
 - Uncultivated estates.
 - Duties on professions.
 - Gardens and Nipa forests.
 - Fish ponds.
- c. The Coffee cultivation, spices, pepper, nopal, manufacture and preparation of sugar, indigo, cochineal, silk, tea, tobacco, cinnamon, and other products adapted to the European market.
- d. Forests.
- e. The selling and granting of grounds or lands, so far as this comes into connection with the cultures.
- f. The breeding of cattle and the improvement of the breed of horses.

* No public auction can take place in Java or the other Dutch possessions save through the auctioneer appointed by Government. At Batavia, Samarang and Surabaya there are separate departments for auctions.

himself in communication with the Resident, and to concert with him the most appropriate means of providing a remedy.

A Chamber of Accounts sitting at Batavia is charged with all the details of control. The accounting parties have the power of appealing from its decisions to a commission named for this purpose by the Governor General.

The colonial treasury provides in a generous manner for the necessities of public worship. The affairs of the reformed Church and the Lutherans are confided to Consistories, those of the Catholics are regulated by a Vicar apostolic.

These denominations of religion are represented in Java and in all the other dominions of the state by ecclesiastics, whose number is in proportion to that of the laics of each religious community. Batavia, Samarang and Surabaya have reformed and catholic churches. Missionaries are sent where their presence is deemed necessary, as to Borneo, Sumatra, Ternate, Banda, Timor, Celebes, in the same way as to the Moluccas where a great portion of the natives have since the 17th. century embraced christianity. All the pastors of different religions are remunerated in a manner completely equal, and truly liberal. Religious toleration appears to be a gift of heaven fallen to the lot of this terrestrial paradise. The central commission of benevolence, the widows funds, agriculture, the bible society, and that of missions are so many institutions of public utility with which these beautiful regions have been endowed.

In the residency of Madion there is, at Tegalsari, a college for Javanese priests. The pilgrimage to Mecca, which very few amongst them can undertake, gives them the right of assuming the generally coveted and often usurped title of Hadji. The Mahometan priests are maintained by the communes through means of the tithe (*pitrah*) of the agricultural produce. When the great mosques require repairs exceeding the means of the indigenous population, the government provides for them by gifts of materials.

It occupies itself solicitously with primary instruction, and schools established on the footing of our provincial institutions in Europe. The primary government school at Weltevreden leaves nothing to be desired. The same may be said of those of Samarang, Surábaya, Grisse, Macassar, Amboyna, and Banda; Malay schools exist in the Moluccas, at Timor &c. The superior direction of instruction is confided to a central commission established at Batavia. The buildings and the books are furnished by government. The tutors are paid by

it, and no one can teach publicly without undergoing a preliminary examination and having attained his degree in Europe.

The chief of the medical service of the army is at the same time charged with the civil service. He corresponds for this purpose with the local commissions and authorities. An inspector of vaccination is joined with him. In all the residencies are found native vaccinators, mostly Mahomedan priests salaried for this purpose; this measure has produced the most happy results. The government also entertains at its own cost a number of doctors, surgeons and medicines, proportioned to the wants of the European population. In the residencies of the interior, in place of doctors, the officer of health of the army is charged with the fulfilment of these functions.

The sciences are represented at Batavia by a learned Society devoted to the encouragement of sciences and arts.* Since the restoration of the islands of the Archipelago to the sway of the Netherlands, we have been more especially occupied with travels of discovery in the islands hitherto but little known. Many naturalists have worthily acquitted themselves. A scientific commission is now organized there. It has for its object researches in the three kingdoms of nature. One of its members is charged with the materials and accounts. The Governor General regulates its labours.

The military marine is at present composed in times of peace, and since the colonial marine has ceased to exist, of a fixed number of frigates, corvettes, steam vessels of great and small size, brigs, &c., detached from the head quarters in Europe, and forming part of the royal marine. According to the system at present in force vessels are to be relieved after being three years on the station. For the transport service and the police of the coasts the local authorities have at their disposal, a certain number of schooners commanded by Europeans, and of gun boats commanded by natives, neither of them having military rank. The principal establishments of the marine are at Batavia (where there is at present under construction a basin in the isle of On-rust) and at Surabaya which private enterprise is soon about to provide with a floating dock.

The army, although forming a branch of that of Europe, is separated from it by circumstances. Our national army being principal-

* Bataviaasch Genootschap van Kunsten en Wetenschappen. This Society reckons a great number of members amongst the European savants of all countries. It possesses a precious collection of archeology, and its cares are directed to the conservation of the ancient monuments erected in Java by the ancient sectaries of Brahminism and Budhism.

ly composed of conscripts, who, according to fundamental law, are not bound to serve in India, it has been necessary to have recourse to voluntary recruitment. The officers are volunteers who request to quit their corps to pass into service in the colonies, or aspirants specially trained for this service at the military academy of Breda or sub-officers who have served with distinction in the colonies. To obtain the rank of officer in the army of India an irreproachable conduct is indispensable. The old practice of sending only the refuse of the Netherlands army no longer exists. From motives of economy the recruits are forwarded in isolated detachments. The transport of corps organized in Europe only takes place in times of war.

The army of India is composed of regular and irregular troops. The first are Europeans or Natives. Some battalions of infantry, as well as a regiment of cavalry, are exclusively of Europeans. The other battalions have two companies of Europeans to four of natives. The regular army in time of peace is composed of fifteen battalions of infantry, of a very numerous general depôt serving to keep fully supplied all the detached garrisons, of a regiment of cavalry, and of a battalion of sappers.

The irregular army is composed of moveable columns which many Princes are bound to hold in readiness to march at the order of Government; of a corps of *marechaussee* (*djajang sekar*, flower of victory), and of local militia (*barisan*) who are commanded by native officers and who have European instructors. To complete this view of the defensive means the burgher guards (*schutterijen*) deserve honorable mention. At all places where a numerous body of Europeans is found, it has been deemed proper to organize them for military duties. When the war called the Five years broke out in 1825 the town of Batavia alone promptly furnished two battalions of infantry, a squadron of cavalry, and a company of artillery.

The native troops are principally furnished by the Moluccas, Celebes and Madura; the cohorts of Gilolo, Ternate, and Tidore can also be put in requisition. An experiment tried on a great scale from 1837 to 1841 for enrolling Africans in our possessions on the coast of Guinea has not answered to the hopes which had been conceived respecting it.

Before terminating this portion of our work we will pay a just tribute of eulogium and acknowledgement to the intrepidity and patience of this brave army of the land and sea, which has known how to maintain by its perseverance the national power in the Indian Archipela-

go, and causes to revive amongst us the remembrance of the numerous exploits and the important discoveries which rendered our forefathers illustrious when guided by the same tricolor which shall serve to conduct our young fellow citizens to victory, if the service and the honour of the country shall some day again require their aid.

But let us return to the object for which these conquests and discoveries, ancient as well as modern, have been undertaken. This aim has been nothing else than simply to develop more and more in these distant countries the means adapted to augment the resources of the commerce of the mother country; to produce and consume are the principal faculties which she labours to favour. Born of the womb of peace these two auxiliaries of commerce can only bear fruits under this protecting ægis.

It is consequently the reign of peace which she strives to maintain and to establish upon a solid basis. To consolidate the empire of the laws and to restrain that of the arbitrary; to govern the native populations according to their institutions; to respect the prejudices and the usages of these peoples but half civilized, when their customs are not found in direct opposition to immoveable and natural laws; to protect them against the invasion of the privileged race,—the Europeans,—these are the principal means which a prudent and enlightened government will endeavour to put in practice.

But to arrive at this, it is necessary to know exactly and by a profound study, the languages, the written and oral laws, the traditions, the religious dogmas, the manners and the usages, in short the whole social system of a nation, above all when it affects the interests of a people whose ancestors have formed part of a social state organized upon a respectable and solid footing. To dictate laws to the Javanese, it is necessary before all that the Government should be perfectly instructed upon all that relates to the history of the country, and that the delegates of power in India to whom it confides the execution of its designs, should be able to execute its orders with a discernment and a knowledge which study and practice can alone furnish.

Under the Government of the Company of the Indies it was very generally the usage to depend with respect to the knowledge acquired by their servants, on the influence of a sojourn in the Archipelago more or less prolonged. Special measures destined to ensure systematically the co-operation of employes enlightened by the sciences and formed by the study of the ancient and modern history of the Javanese, were not deemed strictly necessary under an administra-

tion eminently commercial. But when to this government, which sunk on all sides, succeeded another administrative regime, independent of views more specially commercial, it felt the necessity of ensuring talents and good name in the agents destined for the service of the new power in India.

The levy of regular imposts having been substituted for the system of contracts and contingents, and the European power being placed in direct contact with its Asiatic subjects, the necessity was experienced of studying the idioms in use in every locality and of knowing fundamentally the manners and customs of the inhabitants, and finally of penetrating into all the details of the ancient and modern history of their social institutions, which remained covered until then by a veil which very few of the servants of the Company had tried to raise.

The need which the new authority felt to surround itself with instructed and laborious men, gave birth to the idea of not granting places to any save those who had a recognized capacity, resulting from obligatory studies, made either before or after the nomination of the individual and before or after his departure for India. Finally they took the very judicious determination of creating a special school for those who were desirous of devoting themselves to the civil service in India; in 1842 a chair for the teaching of the Javanese language and its dialects, as also for the Malay language, was erected in the royal academy established, a few years ago, at Delft. Persons will not in future be able to obtain an employment of the first or second class without having gone through a course of studies and submitted to examination at this school. Government anticipates salutary results from this measure.

(to be continued)

NOTES ON THE COAL DEPOSITS WHICH HAVE BEEN
DISCOVERED ALONG THE SIAMESE COAST FROM PI-
NANG TO THE VICINITY OF JUNKCEYLON.

By Lieut. Colonel JAMES LOW,
M. A. S. C. & C. M. R. A. S.

IT is not my intention at present to enter into any geological description of the Coal fields which have been discovered to the Northward of this Island, as a more complete examination of them than circumstances have as yet permitted remains to be made. But a few brief notices in the mean time may prove acceptable to those who view with intense gratification every additional discovery of a mineral, which, while it irresistably impels commerce over the whole globe, invests it also with a halo of romance, for, ugly as a steamer may perhaps be thought to be when viewed physically, its moral grandeur and mighty perspective influence, must deeply impress every reflective mind.

About ten years ago specimens of Coal were brought to me by natives from the vicinity of Trang, one of the lower provinces of Siam. As steamers did not then ply through the Straits, and I was for several years absent from the Island, I did not then examine the localities. On my return, however, I again prosecuted the enquiry; and, after obtaining several specimens, was preparing to sail in my pleasure boat to the northward, when I found the H. C. Steamer *Hooghly* was bound on a similar errand as myself. By the obliging permission of the Honble the Governor, Lt. Col. Butterworth, I took my passage in this vessel. The coal which was the chief object of the excursion was that which has been examined in Calcutta at the Government Mint by Dr. O'Shaughnessy. Our guide having proved false, we were obliged to return without having attained that object. But we visited the *Tama* Coal deposit, and several other localities, where I have every reasons to suppose, from the nature of the strata, that Coal will be yet found. I proceed now, but briefly, to describe the coal of which I have specimens. I hope hereafter to see a chemical analysis of them by the able Assayer above mentioned,—specimens having been sent by me to the

Honble the Governor. Tama, not Gurbie, is the proper name of the Deposit above mentioned.

Nº 1.

This coal is that sort above described as having been chemically analysed. My belief is that the specimens of it which were originally obtained by the Honble Mr. Garling, Resident Councillor at Pinang, and by myself, were got at a place called Súngei Kámúning about sixteen miles above Trang; because I feel convinced,—after my personal examination of the strata there, and the fact that this was the spot indicated by the informant but on other information than his own, although we could not hit it exactly,—that coal of some kind does there exist. Besides the locality where the coal was lately got by the Government Gun boat is only about twelve miles to the southward of S. Kamúning, or about nearly east of Pulo Mútiará or “Pearl Island.”

Dr. O'Shaughnessy's public Report has been kindly communicated to me by the Honble the Governor. [As Dr. O'Shaughnessy's letter appears at length, *post* p. Colonel Low's extract is omitted.]

Nº 2.

This coal *appears* to me to be still superior: if one can judge from an imperfect examination: to No 1, or any coal hitherto discovered in this quarter. But it will be tested I hope in Calcutta by the same able hand. I obtained this after my return in the Steamer, in June last. From observations made while on an excursion to Purlis last year, I felt persuaded that coal fields lay nearer to Penang than those of Tama and Trang. An expert native in my service, who has been long under training, was despatched to that locality and also to Súngei Kámúning. Stormy weather prevented his reaching the latter place, but I have been gratified by getting from him on his return, specimens of this coal (No 2) found by him at the *Pulo Tigá* Islands, lying off Purlis on the Coast of Keddah. Like those of the other coals as yet discovered the strata are covered by the sea at high water.

Although I consider this to be cannel coal in most of its properties, yet it approaches to jet in the darkness of its colour. Its cross fracture seems flat conchoidal, and it is rather brittle. It con-

tains a great deal of inflammable and bituminous matter—the bitumen bubbling out and giving a jet of flame. It burns with a bright yellowish flame, emitting much black smoke and decrepitating a little during the process of consuming. It leaves a dark coloured light cinder, forming but a small part of the original bulk. In this residuum there is a good deal of oxide of iron, which I attribute to the silvery looking film of what may be sulphuret of iron, which is interspersed, but apparently sparingly, throughout the mass. This film is mixed with about perhaps one half its bulk of alumine. There does not appear to be much sulphur in this coal, if one may judge by the weak fumes of that substance disengaged during combustion.

Although this coal lies about thirty miles further south than the Tráng coast coal [or S. Kámúning rather] above noticed, I am strongly tempted to consider them as belonging to the same coal field.

Cannel coal, observes Mr. Phillips in his Mineralogy, is usually found in the upper beds of the coal deposits in England (*a*). But it remains to be shewn that the analogy holds good in these far separated regions. Even should such an analogy exist, it is not likely to be soon proved, because the cost of raising the, perhaps very deeply lying, substrata of common coal, would prevent its being worked at reasonable cost. It is even doubtful whether this last remark may not be found applicable to some of the outcropping coals already discovered, because much will depend on the position of the strata and other circumstances.

N 3.

I obtained specimens of this coal many years ago, and I believe the person who gave it to me is dead,—at any rate he is not to be found, and I have unluckily forgotten the exact locality, although sufficiently aware that it was procured somewhere in the vicinity of the Támá or Tráng coals.

I made a few experiments with this coal in a Chinese forge at my residence. It seems to me in some respects to partake of the properties of a slaty authracite. It is rather difficult to ignite, but when once ignited, it gives out a very considerable

degree of heat, more than that of common charcoal apparently, and without much smell of sulphur. It burns with a slight whitish flame, being in this particular unlike an Anthracite. It leaves a rather earthy cinder or coke containing iron, an oxide I suppose. From the external aspect of this coal I should be inclined to think, that it may have been taken from the upper stratum or covering of either the Kámúning or Tráng coal.

Nº 1.

This is a coal with a dull fracture and slightly glimmering. The man who brought it has gone to sea, but I hope on his return to be informed of the locality, which I could not discover, as he sent, and did not bring, the specimen. But I have little doubt of its having been got in the vicinity of Tráng, Támá or Gurbie. This coal has not a very promising external aspect, having a very anthracitic appearance. It nevertheless contains much inflammable matter. But bituminous matter does not ooze or bubble out of it during combustion as in No. 2.

Nº 5.

This is from Támá coal deposit first called the Gurbie coal deposit, because lying in a district of that name, beyond or north of Tráng. It was first visited by Captain Congalton in the Hooghly by order of the Hon'ble the Governor.

The present specimens were taken by myself from the stratum on the second trip of the Steamer to Támá. Externally this coal looks a good deal like charcoal, but it has a duller colour. It is rather too compact for a brown coal or lignite. Its fracture is also more conchoidal than the generality of lignites. Its dull dark or black colour might cause it to be taken for an anthracite. But when exposed to the heat of a charcoal fire with Chinese bellows, it ignited slowly, and consumed with a whitish flame, leaving a good deal of earthy coke. It appears to contain a good deal of inflammable matter, for it continued for some time to give out flame after being removed from the fire.

Nº 6.

This specimen has been taken out of a heap left in the Govern-

ment Godown by Capt. Congalton after his first excursion to Gurbie or Támara. I mention it because it might be mistaken for another coal, owing to its rather glimmering resinous lustre. But under the same degree of heat it exhibits nothing to distinguish it from No. 5.

Nº 7.

This is the last coal which has been brought. It was found by the Government Gunboatmen, led by Siamese, close, as far as I can judge or in the bay north of Tanjong Búmbong on the Coast of Tráng, betwixt Tráng and Kámúning.

The specimen I have of it is too small for examination. It seems to be a very valuable Cannel coal with rather a duller external colour and fracture than No. 2.

I was informed of this deposit on my return in the Steamer, and then it was too late to take advantage of it. The bed of coal it seems underlies a rock of some kind about half a foot in thickness,—dark coloured slate or shale I suspect from the description of my informant.*

I have intimations of various other coal fields which I hope to be able to visit also, at the earliest opportunity after the rains.

J. LOW.

Lt. Col.

* Some remarks on the coal of this locality will be found in a subsequent page.—ED.

MALAY PANTUNS.

داتو بندهارا مهرنتهکن	راج بسرامقون نگري
تياد بوله دبندیکن	توان سؤرخ سري نگري
لقسمان مهرنته لاوت	داتو بندهارا مهرنته نگري
بارغ دهان اديق ابغ تورث	تياد دافت دبندیکن
مغادغ موسه اورغ جاهت	تولقسمان مهرنته لاوت
دغن سبوله ^۲ سهقي ابغ دائه	بارغدهمان اديق فرگي ابغ ثوره
رعیه نگري سقاي سنغ	مغادغ موسه اورغ جاهت
بهاروله هاتي دافت سنغ	دغن سبوله ابغ چهري سهقي دائه
کولم دفاگر ثوهنن کلاف	تاسيق سراهي تهفته ايکن
بيلاله وقتو دافت برجهقا	عاشيق براهي ابغ اکن توان
سري کلا دثداغ تهمو	تروغ ثرة تهمين کنچور
بيلا وقتو دافت برتهو	سؤرخ دبارة سؤرخ دتيهور
دکایل اوله انق سراتي	ايکن گلاما سيفاراغفارغ
ما بقله ابغ ماکن هاتي	براف لام ابغ تائفنداغ
امبق مهاچه دکندياري	اشين بارة گلمیخ تيمور
باغي فاحه راس اري ^۲	داندام کفارة دباوا نيدور
فندان بربره اکن فرمات	کيوکيت برماين اشين
ماکن برکرة دغن ايرمات	ساکيتين مودا برچري ماین
دامبل اورغ دباو کلوروغ	فيسخ ترکولي سفرة ماتي
هندق تربخ بوکنن بورخ	باغي دبراي راسان هاتي

MISCELLANEOUS NOTICES, CONTRIBUTIONS, AND
CORRESPONDENCE.

**Discovery of Coal in Ligor and Kedah on the West
Coast of the Malay Peninsula.**

IN the beginning of March last we received from the Hon'ble Colonel Butterworth, C. B., a specimen of coal said to have been found in Junkceylon. The extreme interest of this discovery induced us at once to forward a fragment in a letter by the overland mail to Professor Ansted. The July mail brought us some remarks by Professor Ansted on this coal, which he considered of so much importance as to bring it to the notice of the East India Company and the Geological Society. We have since received the July number of the Journal of the Asiatic Society containing Dr. O'Shaughnessy's report on a specimen which Colonel Butterworth had forwarded to the Bengal Government. The great importance of the discovery both in an economical and a scientific point of view, (for in the latter it promises with the associated calcareous beds to furnish a long sought key to unlock the history of the sedimentary rocks of the Peninsula,) induce us to lay before the readers of the Journal an account of the progress that has hitherto been made in tracing the coal. Colonel Low's obliging and prompt compliance with our request that he would describe the result of his recent enquiries (which have been rewarded by the ascertainment of coal in a new locality and one much nearer to Pinang*) enables us to refer to his paper for several details which are omitted here.

The external characters of the coal first discovered differ from those of all the specimens of common coal, both English and Asiatic, which we possess. Although Dr. O'Shaughnessy has shewn it to be identical in composition† with some species of cannel coal, it, at least our specimen, is also decidedly different in these respects, from a specimen of English cannel coal with which we have compared it. Its lustre is dull in comparison with it, as with all our other specimens; in some directions it is resinous and faintly shining, but de-

* See ante p. 146.

† We mean in the proportion of volatile matter to charcoal, for it has not yet been chemically analyzed.

void of that brilliancy which all the other varieties possess in a greater or less degree, and which particularly distinguishes the Labuan coal;* in other directions it is of a dull velvet black hue. One of its marked peculiarities is its compactness, firmness, and fine, close, fibrous structure which exactly resembles that of a piece of fine grained wood. The fibres in some places are concentrically curved. The fracture in some directions bears a perfect resemblance to that of black sealing wax. In others it is like ebony. In cleavage faces it has a beautiful polish. It burns with a large bright flame, at first with decrepitation, and throughout with brilliant jets, and intumescence, caking very much. A scoria with metallic lustre remains. This when broken is seen to be finely vesicular, and possessing a bright glistening pitchy lustre. The fragments from the centre when again heated give a little white flame with an occasional slight jet.

Volatile matter, 46. 746.

Charcoal, 52. 071.

Ash, 1. 183.

Sp. gr. 1. 245.

When we cursorily examined this coal previous to sending it to Professor Ansted, it seemed externally to be intermediate between lignite and cannel coal, (which graduate into each other, so that, in some systems of mineralogy, lignite is merely mentioned as a variety of cannel coal) but much nearer to the former. On re-examination and comparison with several varieties of coal, we observe that, while it differs very markedly from all these, its fracture presents the very same appearances which we find on breaking a small specimen of jet. Under the microscope this resemblance in structure, colour and lustre is preserved. The Junkceylon, or rather Ligor, coal, however, is much more highly bituminized, as the lignite burns with a smaller quantity of flame and without jets.

In nature the different kinds of coal pass into each other by many gradations. Several are often found in the same bed; and even those which mineralogically bear the same name, frequently, in specimens from different localities and even from the same locality, exhibit a want of agreement in the proportions of their ingredients. Thus different specimens of cannel coal which have been ex-

amined in England have yielded results shewing a range of variable-ness in the quantity of volatile matter of at least 10 per cent. Chemical analyses have also shewn considerable variety.

Some time ago we received from the honorable Mr. Church a specimen of coal from Rettie on the South East Coast of Sumatra which had been presented to him by the Sultan of Linga. This coal bears a close resemblance externally to that from Junkceylon, and differs from all our other specimens. It is foliated, and its fracture in the direction of the foliæ is minutely rough approaching to earthy, being coarser than that of the Junkceylon specimen. Its fracture is large conchoidal, smooth, and glistening, but duller than the other. It burns with a large flame, and with slight decrepitation and jets, which are not so brilliant as those of the Junkceylon 'coal. It possesses slight intumescence. It appears to be a good open burning coal.

Volatile matter, 51. 43.

Charcoal, 48. 57.

Ash, not determined.

Sp. gr. 1. 23.

*Extract of a letter from the Editor to Professor ANSTED,
dated 6th. March, 1847.*

But my purpose in now addressing you is to announce a discovery as important in its geological as in its economical bearings. In July 1845 our zealous Governor, the Hon'ble Colonel Butterworth, dispatched one of the government steamers to examine a place called Gurbie on the west coast of the Peninsula near Junkceylon where he had been informed some traces of coal existed. Captain Congalton, the Commander of the Steamer, proceeded up the river Gurbie without finding any coal, and then proceeded to *Tema'h* which lies on the coast about three miles to the westward of the mouth of the Gurbie. Here he found a low cliff which consisted 1st. of a horizontal layer, visible only at low water, of a black rock having some resemblance to coal and varying in thickness from 9 to 2 inches; 2d of a series of calcareous layers overlying the carbonaceous one, each a few inches, and the whole 7 or 8 feet in thickness; and 3rd. an upper bed of earth about 11 feet in depth. The

calcareous stratum has a base composed of a little fine clay mixed with a considerable proportion of comminuted shells, and imbedding shells in great abundance. Most of these are slightly defective, but many are entire. The interior of some of the shells is filled with a substance similar to that of which the base is formed, but a considerable number are filled with crystallizations. The whole forms a compact heavy rock. The black rock was found to be incombustible in a furnace. Captain Congalton says that the layer extended about 300 yards, and was bounded on both its east and west sides by "Iron Stone". What this was I cannot say. Masses or great slabs of the calcarous rock lay on the beach. On my return from Malacca, Colonel Butterworth shewed me a piece of rock which he had received a few days previously from the Hon'ble Mr. Garling, Resident Councillor at Pinang. I send a specimen. It appears to be a fine specimen of bituminized wood or jet. It burns with a clear flame, occasionally greenish, and with a slight decrepitation. One portion has a beautiful lustre and high polish. The fracture shews a fine velvet black or brownish-black. It was found by a Pinang Siamese on the southern coast of the island of Junkceylon, (well known for its tin) near the bank of a river, and two or three hundred feet from its mouth. The man, having heard something about coal, tried whether he could cook his food with it, and finding that it answered well, brought away 4 or 5 coyan [each coyan weigh 45 piculs, the picul weighs 133½ lbs.] He offered to import it into Pinang at the rate of £ 12. per coyan, but afterwards raised his demand to £ 150 for an 8 coyan boat-load. He said he had found a layer of it three feet in thickness close under the surface. Could you ascertain the quality of this coal and oblige me with a memorandum of its comparative value? This could probably be easily obtained at the Museum of Economic Geology. Colonel Butterworth is very desirous of offering every facility and assistance to geological and other researches, and it would interest him to know the relative value of the first coal that has been discovered in the Peninsula.

Extract of a letter from Professor Ansted to the Editor, dated, London, 17th May 1847.

To begin with the subject of the coal, I am enabled to inform

you that it will in all probability prove admirably adapted for every purpose to which coal is economically applied. It gives off much gas and some tar and other liquid products of combustion found in bituminous coal. It contains scarcely any water, an exceedingly small proportion of earthy matter, (not more than 1.33 per cent.), and its heating power is probably very considerable. This I have not indeed yet had determined accurately, as the analysis for coal to determine its economic value is by no means so simple or easy a matter as you perhaps suppose.

It would no doubt coke well, and it might I believe be used to great advantage both for steam purposes and for smelting, besides ordinary household purposes. It contains no sulphur.

(No. 31.)

*From the Governor of P. W. Island Singapore and Malacca,
To C. BEADON, Esq., Under-Secretary to the Government of Bengal,
Fort William. Dated, Singapore, 27th February, 1847.*

SIR,—My letter under date the 26th July 1845, No. 124, will have made the Hon'ble the Deputy Governor of Bengal acquainted with my belief that Coal was to be found in the vicinity of Penang, and although I failed at that time, in discovering the mineral, yet I did not relax my inquiries, and I am now enabled to report very satisfactorily, on the subject.

On the recent return of the Hon'ble East India Company's Steamer Hooghly from the Northern end of the Straits, after conveying the Hon'ble Recorder, and Court Establishment to Penang, Captain Congalton brought me a specimen of Coal which had been deposited by some person at the Harbour Master's Office; search had been made for the party without avail, and I apprehended that I should be again baffled, when I was favored with a letter, regarding the said Coal, by the Resident Councillor at Penang, a copy of which I beg to enclose.

The Hon'ble the Deputy Governor will observe that the Coal now discovered, (a specimen of which I beg to forward for the purpose of being tested,) is found on the Southern Coast of the Island of Junk Ceylon, which is not far from the River Gurbie, on the Malayan Peninsula, where my former search was made, and if we may judge

from the seam noticed by Kong Kiyon, who brought in the Coal. there must be a large quantity available.

I do not think that Kong Kiyon is competent to enter into the engagement proposed by the Resident Councillor at Penang, or that we should be justified in making any agreement with him to supply the mineral from the territory of our Ally, the King of Siam, without previously ascertaining how far he may be cognizant of such a proceeding; neither would the price demanded, viz .7 dollars per ton, justify me in laying in any quantity whilst that of ascertained good quality can be purchased for 6 dollars per ton.

I have however ventured to authorize Mr. Garling, to commission from Kong Kiyon two or three coyans of the Coal, and on delivery, to present him with 25 dollars from Government in addition to the price of the Coal, for having made the discovery known to the authorities, and with a view of inducing others to come forward with any information likely to develop the resources of these settlements, and the adjacent native states, which I trust will meet with the approval of the Hon'ble the Deputy Governor of Bengal.

The Junks from China and Cochin China are now daily making their appearance, and I am averse to withdrawing the Steamer from the vicinity of Point Romania for any lengthened period, or I would have furnished a more full report on the subject of this Coal, but I hope to proceed on my annual tour early in May, or as soon as it shall be ascertained, by the change of the monsoon, that the whole of the Junks of the season have arrived, when I shall send the Hooghly to Junk Ceylon, and do myself the honor of reporting the result.

I have the honor to be, &c.

W. J. BUTTERWORTH.

Governor.

Singapore. 27th February, 1847

(No. 161 of 1847.)

From the Resident Conncillor Prince of Wales Island.

To the Hon'ble the Governor, &c. &c. &c.

SIR,—Captain Congalton, in command of the Hon'ble Company's Steamer Hooghly, will have shown to you a muster of Coal brought to Penang just about the time the Steamer reached this port. He procured the muster from Mr. Gottlieb, the Harbour Master, but no particulars could be obtained, as the man who brought the sample

could not be found. Mr. Gottlieb having at last succeeded in tracing the man, sent him to my office, and I have now the honor of giving you the result of my inquiries. The man's name is Kong Kiyon, a Siamese by community, but born in Penang. By his statement, the Sample was found on the river bank mingled with the mud, close upon the jungle, and about 2 or 3 hundred feet from the mouth of the river, on the Southern Coast of the Island of Junk Ceylon. There are rocks on the coast—Kong Kiyon went there to collect Ratans—any persons may there go in the jungles and collect what they please; some time since he brought a piece of this mineral to Penang, but it was considered as useless. Having been spoken to on the subject, immediately he came upon this Coal as stated, he set to cooking his rice with it, and finding it answer the purpose well, he ventured to bring away about 4 or 5 coyans of it. The boat has now gone away and he has now left but one small piece, which he promised to bring to my office.

He discovered a stratum about 3 feet in thickness close under the surface but of its length and breadth he knows nothing. Why the people do not use it for culinary purpose he knows not, but supposes that they may know nothing about it. There are no inhabitants in the vicinity of the Coal, and he entertains no difficulty in bringing away any quantity.

Kong Kiyon told Mr. Gottlieb that he would engage to bring the Coal at the rate of \$12 per coyans of 45 Peculs. He has thought better of it. He tells me that, after consulting his comrades, he would not engage under \$150 for an 8 coyans boat load, being upwards of 50 per cent. beyond his offer to Mr. Gottlieb. But Kong Kiyon says, that for \$150 per load of an 8 coyang boat, he will enter into a bond with securities to supply the mineral always, provided a small advance of cash be made to him, as he has no fund of his own.

Mr. Gottlieb brought one piece burnt. It had the appearance and smell of a common cinder, only it was very light in weight. Captain Congalton spoke well of it after trial.

I shall await your instructions in this matter.

I have, &c.

S. GARLING,
Resident Councillor.

P. W. Island, the 13th February, 1847.

15th.—P. S. The specimen of Coal not having yet come to hand, I shall no longer detain this letter.

S. GARLING,
Resident Councillor.

(No. 290.)

Copy of this letter and of its enclosure, together with the specimen of Coal otherwise received, forwarded to the Mint Master of Calcutta, for the purpose therein mentioned.

By order of the Hon'ble the Deputy Governor of Bengal.

C. BEADON,
Under Secretary to the Governor of Bengal,
Fort William, 7th April, 1847.

(No 456 of 1846-47.)

From Lieut.-Col. W. N. FORBES, Mint Master.
To C. BEADON, Esq. Under Secretary to the Government of Bengal.

SIR,—I have the honor to acknowledge the receipt of your letter No. 290, dated the 7th April 1847, forwarding a copy of a letter and enclosure from the Governor of P. W. Island, Singapore and Malacca, together with the specimen of Coal which accompanied them, and in reply to state that, as the specimen supplied was insufficient for experiments conducted in the Steam Engine, or other mint furnaces, I requested Dr. W B. O'Shaughnessy, Chemical Examiner to Government to examine it in detail, and I have now the pleasure of transmitting in original his very satisfactory report on its assays and analysis.

I have, &c.
W. N. FORBES,
Mint Master.

Calcutta Mint, the 20th April, 1847.

(No. 26.)

From Dr. W. B. O' SHAUGHNESSY, Chemical Examiner to Government.

To Lieut.-Col. W. N. FORBES, Mint Master.
Dated, Chemical Examiner's Office, Fort William, 30th April, 1847.

SIR,—In reply to your letter of the 14th inst. requesting me to

furnish a report on a specimen of Coal received from the Government of Bengal, I have the honor to send you the accompanying memorandum of the results of its analysis, which shows that this Coal is by far the most valuable hitherto found in this or adjacent countries.

The coal is identical with the "Cannel" or "Wigan" kind. It is free from sulphur, cokes well and yields such an abundance of gaseous inflammable matter as to be of the utmost value for generating steam or manufacturing gas. The proportion of ash is moreover very small. The discovery of this *kind* of coal promises moreover to prove of additional importance in as much as it is generally found to accompany deposits of the richest and best ordinary coking coal.

3. The documents sent with your letter are herewith returned.

I have, &c

W. B. O'SHAUGHNESSY,
Chemical Examiner.

Memorandum of composition of specimen of Coal from Junk Ceylon, compared with that of English Cannel Coal.

	Specific gravity.	In 100 Parts.		
		Volatile matter.	Coke.	Ash.
Junk Ceylon Coal, . .	1. 25	60.40	39.58	2.50
English Cannel Coal, . .	1. 27†	60.00*	40.00*	0.30†

W. B. O'SHAUGHNESSY,
Chemical Examiner.

Calcutta, 30th April, 1847.

* *Dr. Thomson* —Brande's Manual, pp. 9, 83.

† *Berthier*.—Traite des Essais, Vol. I, pp. 328, 336 and 339.

(No. 469).

*From the Under Secretary to the Government of Bengal.
To the Governor of Prince of Wales' Island, Singapore and Malacca.
Dated Fort William, the 19th May, 1847.*

SIR,—I am directed to transmit for your information copy of a letter from the Mint Master of Calcutta, No, 456, dated the 30th

ultimo, with the Chemical Examiner's Report which accompanied it, on the specimen of Coal received with your letter No. 31, dated the 27th February last.

2. You will observe that the quantity forwarded by you was not sufficient for such experiments as are conducted in the Steam Engine and Mint Furnaces, and you are therefore requested to procure a larger supply of the same description of Coal. It is very desirable too that the locality in which it is found should be more accurately ascertained and described, and the Deputy Governor feels assured that you will use every effort to obtain the fullest particulars on this point as well as every other connected with this important subject.

I have, &c.

A. R. YOUNG,

*Under-Secretary to the Government of Bengal
Fort William, the 19th May, 1847.*

We are indebted to the honorable the Governor for the information embodied in the following account of the steps which he took on his recent annual visit to Pinang to ascertain the locality where the coal had been found, and of the results. So soon as the steamer Hooghly was disposable for this service, Captain Congalton was directed to proceed to the place that might be indicated by the Siamese who had discovered the coal, and bring away a considerable quantity. The Siamese, however, was either unwilling to sell his secret for a small gratuity, or, as appears more probable from the sequel, was trafficking on the discovery of another with which he had made himself but imperfectly acquainted. After leading the Steamer far to the northward, and pointing out a spot which on examination was found to be devoid of coal, the man pretended sickness, and neither bribes, promises nor threats could induce him to shew the place where the coal had been found,—for the best of reasons as it afterwards appeared: he did not himself know where it was.

After the return of the Steamer from her fruitless search, Colonel Butterworth personally examined the man, when he admitted that a friend was acquainted with the locality, and promised to bring him. Subsequently he declared that his friend was not to be found,

but as he had inadvertently disclosed his name, Colonel Butterworth caused a search to be made for him in Province Wellesley. The real possessor of the secret was now found, and, all hesitation to point out the locality being removed by a present of fifty dollars, he was sent in one of the Government Gun boats for the purpose on the 24th July last. The Gun boat arrived on the 28th at the spot indicated by the Siamese as the locality of the coal bed, where she anchored in $2\frac{1}{2}$ fathoms of water and about $\frac{1}{4}$ of a mile from the shore. The party landed on a small sandy beach having rocks on either side, and on walking about 200 feet from the shore they came upon the coal, of which several piculs were brought away. The commander of the Gun boat reported that the surface layer was red, composed of mingled sand and shells, and from 2 to 6 inches in thickness. This rested on a layer of sand, beneath which, and in contact with the coal, was a thin layer of blue clay. He was led to think that the coal extends from the beach to a small hill or elevation which stretches for about 1000 feet in a N.-S. direction along the shore at a distance varying from 50 to 200 feet. The position could not be ascertained by observation, but the place indicated on Horsburgh's chart by the Commander of the Gun boat as the locality of the coal deposit is (according to Captain Gottlieb, the Harbour Master at Pinang, from whose letter to the Resident Councillor we derive these details) in latitude $7^{\circ} 41'$ N. and longitude $99^{\circ} 15'$ E., the southern point of Pulo Lontar bearing SW. by S., P. Telebon SSE. and Tanjong Catton NE. by N.

A quantity of this coal was tried in the Hooghly during her last voyage from Pinang to Singapore, and Captain Congalton inform us that it burned well.

Some fine specimens which have been presented to us by the hon'ble the Governor, and a bag full of others for which we are indebted to Captain Congalton, enable us to add a few remarks on this coal.

In its external appearance, fracture, texture, polish on the sides of cleavage planes transverse to the grain, unusual abundance of inflammable gas, and mode of burning, it so completely resembles the specimen first noticed above, that, whether found in the same locality with it or not, we can have no hesitation in pronouncing both to be identical. The first is rather more bright in its lustre,

has a finer grain, and perhaps a finer polish, but some specimens of the new coal in Colonel Butterworth's possession are almost, if not quite, equal to it in those respects. The aspect is so entirely that of jet, that, although it is of little consequence whether it be denominated cannel coal or lignite, we consider the most appropriate mineralogical name would be highly bituminous jet. The larger portion of the contents of Captain Congalton's bag, however, is not this lignite, but a compact, hard, blackish (sometimes brownish black) stony substance, saccharoid in texture, consisting of finely granular quartz and carbonaceous matter intimately blended, some of which may be termed an exceedingly siliceous or impure anthracite or pseudo anthracite, although in most of the specimens we can hardly determine by the eye whether it is the original lignite or wood plutonically converted into proper anthracite with a great excess of siliceous sand, or sedimentary sand and carbon intermixed which has filled the hollows and interstices of the wood prior to the metamorphism of the whole.

In one very fine specimen, for which we have to thank Colonel Butterworth, the texture of the wood is completely preserved, and its external aspect is exactly that of a piece of half-decayed wood. The cross fracture exhibits the fine layers of the wood in the most distinct manner. Some are siliceous, varying in color from greyish, reddish, and yellowish, to greyish black, and others, in less abundance, alternating with these are a fine black jet. At one place grey layers of the former regularly alternate with jet which at first is pure but gradually loses its compact texture and resinous lustre, becoming of a dull black and then more and more siliceous, granular and greyish, till it can scarcely be distinguished from the investing grey layers. At one spot all trace is lost, the whole merging into an uniform lapidified base resembling that of the other specimens. In these the siliceous rock is found often columnar, resembling in shape and surface a portion of a trunk or branch of a tree,—very often with a thin enveloping layer of lignite adhering to it, and frequently also with seams and irregular veins of lignite intersecting or penetrating it. The larger pieces of lignite are sometimes intersected or penetrated in the same manner by the anthracite.

But the most interesting specimens are those in which the gradual

passage of the lignite into the carbonaceous silix can be distinctly traced. The lignite first becomes harder, with a somewhat dull aspect; minute granules of silix then appear, and continue to increase in number until they break up the base as it were, and gradually occupy the whole of it and form the saccharoid rock. Under the microscope, with a power of 450, the dull hue is seen to be caused by very minute crystals of quartz, *each of which is isolated and closely invested by the jet** The common siliceous rock is also seen to consist of microscopic siliceous crystals of watery and yellowish hues, with more or less of carbon disseminated amongst them, the blackish hue which some specimens have, and the blending of both colours into one uniform hue in others, arising from the lighter colored crystals being imperceptible to the eye.

In a few specimens we see alternate layers of lignite,—compact or very finely granular, black, lapidified, layers,—layers resembling greyish carbonaceous sandstone,—and layers having completely the aspect of brownish and brownish black decayed crumbling wood save that while some parts have the proper dull hue the rest has a glistening lustre. The two latter when examined by the naked eye appear as if sedimentary sand had been deposited between layers of vegetable matter, in the one case; and in the other, had penetrated into the interstices of the decayed wood. The microscope however shews the minute glistening granules to be regular six sided prisms with pyramidal extremities and so isolated, in many instances, as to leave no doubt that they have crystallised in situ.

The specific gravity of the most siliceous rock is 2. 58. On

* This is a very fine instance of that process by which new minerals are introduced into the heart of other minerals without any apparent channel. In many cases where most of the elements of the new mineral exist in the matrix the process may have been merely a chemical one, but in others, where new elements are found, electricity has probably been the instrument of the change. In the present case the silix is imbedded in a lignite having a very minute proportion of ash, and although the silicious matter may have been introduced in a gaseous or liquid state and then crystallised, an equal bulk of the carbonaceous base appears to have been removed for each crystal of silix that was formed. Unless we admit the doctrine of isomeric transmutation of elements, which (notwithstanding Dr.S. Brown's experiments which he supposed to prove the conversion of carbon into *silicon* &c.) is generally rejected by chemists, we must believe that electrical agency replaced the carbon by silix.

exposing a piece of 2. 22 grs. to the flame of the blowpipe for some time it retained its dark colour, but lost . 06 gr. or about 2. 7 per cent. It exhibits no trace of lime or iron, and appears to be almost pure silica deriving its colour from a small portion of carbon. The more carbonaceous portions may be termed a highly siliceous anthracite, for although proper anthracite contains about twice as much carbon as silica there is no defined limit at which the name ceases to be applicable. Mr. Lyell and Dr. Percy retain the name for a specimen of Worcester anthracite which on analysis by the latter yielded only 28 per cent of carbon to 68 per cent of ash.

In several fragments iron pyrites are abundant, occurring either in large aggregations or in films, or veins, and occasionally in layers alternating with layers of jet. In one specimen, where the woody structure is so well preserved that the fibres stand out as we often see them to do in pieces of wood from marshes, some portions are lignite, and others have a peculiar dull glistening golden lustre, which is found to arise from the larger fibres having been converted into pyrites. Under a microscope this presents a beautiful appearance, the metallic fibres being thickly interspersed amongst the untransmuted ones, or traversing the black carbonaceous ground like gold threads on velvet. Portions of the siliceous cores are often pyritous, and in one or two specimens the siliceous granules are replaced by pyritous granules, although isolated dark siliceous spots or veins and thin films of jet occur in the granular base of pyrites and carbon.

The successive steps of the transforming process as exhibited in these and Colonel Butterworth's specimen bear a striking resemblance to the gradations which are sometimes seen in the silicifying process which the sedimentary rocks of the southern portion of the Peninsula (as well as the northern) have in many places undergone. Just as we see the thin layers and films of lignite preserved in the completely petrified base, so in the cliffs of Cape Rachado we see minute films of the original micaceous clayey rock occurring in the heart of the quartz into which it has been converted. Numerous analogous instances everywhere present themselves, and afford the clearest indications of the gradual and often gentle action*

* Such it must have been in the case of the partial conversion of the Ligor jet into a siliceous and pyritous rock, because a violent and powerful ac-

by which the plutonic silicifying and ferruginating exhalations have accomplished their far pervading and wonderful transformations.

In the mode in which the pyrites are generally disseminated, this coal bears a considerable resemblance to a mass which we found in the sandstone and shale strata of Pearl's Hill, Singapore, in June 1846, and which, with the assistance promptly and effectively granted to us by the honorable the Resident Councillor, we traced to its termination a few months ago. Some of it was proper anthracite, and along with it was some imperfect plumbago and plumbaginous anthracite, and a little mineral charcoal. But much was highly siliceous, and although the fibres are in general more separated and distinct than in the Ligor specimens there are compact granular portions indistinguishable from some of the latter. Even these however are shewn by the microscope to differ from the Ligor rock in not being regularly crystallized, retaining their granular appearance under a power of 22,500. When bruised to a very fine powder the carbonaceous and siliceous particles are seen with this power to be quite separated.

We at present allude to this, the only trace of ancient carbonaceous rock that has yet been found in Singapore, for the purpose of introducing a reflection that occurred to us at the time. We found in it a striking confirmation of the all pervading plutonic action which the Malay Peninsula has undergone, or of which, we should rather say, it is the product, and of which we meet with evidences in every one of the numberless elevations with which the surface of the southern portion, more particularly, is rough; but we apprehended that if any extensive deposit of coal should ever be discovered it might be so much affected by the same agency as to be deteriorated for economical purposes. The few sedimentary hills of the Peninsula which we have examined in a latitude so far north as Pinang were identical in their vestiges of plutonic disturbance and alteration with those of the southern or Johore tracts, although less strongly marked; and specimens of rocks recently received from the islands north of Pinang bear out the opinion which we expressed elsewhere some time ago, that the Peninsula is a portion

tion, such as great heat caused by the proximity of molten granitic fluid, would have expelled the volatile ingredients from the whole of each specimen.

of a region the rocks of which have been more or less transformed, silicified, ferruginated or ironmasked, in the progress of the plutonic developement which elevated and moulded it. There may however be considerable tracts, as there are small tracts in every district, which have escaped the stronger attacks of the subterranean powers, and should coal beds occur in such, the lesser plutonic influence which has been exerted on them may have been advantageous instead of the reverse.

The surface layer broken through to reach the coal and said to contain shells, is a conglomeritic sand, partially ironmasked. The specimens which we have seen contain no shells, but some fresh barnacles and other shells adhere to its upper and under surfaces, which have other marks of having been taken from a spot within the range of the tide. A portion of a ferruginous vein varying in thickness, and accompanied by a lateral ramification and reticulation of thin veins, pervades a slab about 2 feet square, and from 6 inches to 1 inch thick, in the possession of Colonel Butterworth. It is in every respect similar to one of the common forms of ironmasked rock in and near Singapore;—the base in the course of the veins being merely impregnated and coloured of reddish-brown and blackish colours by hydrous oxide of iron, although there are spots where the rock is completely disguised. On the under side there are small portions of the vein where the hydrated peroxide is represented by iron pyrites thickly disseminated amongst the sand and pebbles of the base; and the appearances at one spot where the passage of the latter into the former is distinctly seen leave little doubt that the decomposition of the pyrites has produced the hydrated peroxide.

We have observed similar phenomena in ferruginous dykes in the granite of Pulo Bésar near Malacca, as well as at other places, and both instances, when we consider the facility with which the bisulphuret of iron decomposes, lend colour to the surmise that the ferruginous exhalations with which the Peninsula has been so largely penetrated may have more frequently been accompanied by sulphur, and originally condensed in the form of pyrites, than the general absence of this mineral in the ironmasked rocks seems to evince.

In the Ligor rock the pyritous nests are separated from the brownish black ironmasked rock by a narrow irregular band of dull

brownish red and reddish brown colours. Minute pyrites and specs of similar reddish hues are also seen scattered in the dark part of the rock in several places.

The same gradations from a light dull rust coloured, to a blackish shining, ore of iron, produced by the slow and increasing hydrous peroxidation of the iron of the decomposed pyrites, are observable in specimens from Pulo Bésar.

Similar phenomena may be remarked in the ferruginous granite of Pulo Málláng, a small islet off the N. E. coast of Pulo Pompong or Báltám Island (in the Archipelago on the south side of the Straits of Singapore) accompanied by a dyke of hydrated peroxide of iron.

Although shells were not found in the layers overlying the coal visited by the Gunboat, they exist in abundance in the calcareous beds associated with the imperfect coal of Támáh. Slabs taken from these have an earthy base consisting of a tough indurated limestone with a specific gravity of 2. 5. The shells imbedded are mostly filled with crystallized carbonate of lime having a specific gravity of about 2. 9. All the shells appear to be fresh water species, as the paucity of species and multitude of individuals might lead us to conjecture. Dr. Traill has detected at least three species; one of which is a longitudinally furrowed *Melania* and another apparently a *Paludina*. The largest and most common shell belongs to the same Family and bears a considerable resemblance in the general form of the shell to some figured species of *Trochus* and *Pleurotoma*, but the apertures are not well preserved. Dr. Traill, however, seems inclined to think it is also a *Paludina*.

It will be seen from the preceding details that the information hitherto obtained is so fragmentary and meagre as to serve only to excite our curiosity, without enabling us to draw any conclusion respecting the probability of the existence of deposits of workable coal. Even at the places where carbonaceous rocks have been found we are without any accurate description of the thickness, dip, strike and apparent extent of the layers, or of the nature and position of the associated rocks; and, in fact, are entirely wanting in all those data necessary to hazard even a surmise as to the value of the deposits, and the propriety of incurring the trouble of enter-

ing into any negotiations with the Siamese authorities on the subject, or the expense of boring, should the dip of the beds render a surface survey insufficient.

Earthquakes and eruption in Ternate.*

On the 21st December last three shocks of an earthquake were felt in Ternate, the first two of which were very heavy and accompanied by a thundering noise.

On the 7th of February following the inhabitants of this island were again disturbed by an eruption of the mountain which lasted about half an hour. The obscure light prevented any other phenomena of this eruption being noticed save the thundering noise with which it was attended and the column of ashes which it ejected above the clouds. The lava stream flowed to the north of the mountain without causing any damage.

Other two earthquake shocks were subsequently experienced at Ternate; while, finally, on the 8th of April last about half past 3 o'clock a severe earthquake took place which was felt in a direction from north to south and lasted some seconds without however occasioning any injury to buildings.

Falling in of a Mountain in Timor.*

In the month of March last a sinking of the mountain Nimbenok (which is three days distance from Kupang) took place, in consequence of which many houses with their contents were destroyed by the great stones that rolled down. Fortunately no men were killed.

Correspondence.

WE have received several communications with reference to our first number. Of these none has afforded us more gratification than a letter written by Dr. Munnich, one of the Editors of the *Natuur en Geneeskundig Archief voor Neerlands Indie*, on the part of himself and his co-editors, Drs. Bosch, Fromm, Bleeker, Muller and Heijmann, and accompanied by a complete set of the Archief, as well as a copy of Dr. Munnich's eloquent and philosophical "Popular Discourses on the Human Body and Life." We cannot deny our-

* From the *Javaasche Courant* for August 1847.

selves the pleasure of making a short extract from Dr. Munnich's letter. It will be perceived from it that the publication of the *Archief* has been suspended for the present. We sincerely hope, for the interests of science, that a work so important in itself, and so honorable to Netherlands India, will speedily be continued.

"We regret however to observe, that, some difficulties lately arisen, independent of the editors, have obliged us to relinquish temporarily our labour; nevertheless we hope that the obstacle we have encountered will soon be removed, and that, in a short space of time, we shall be enabled to resume the task, commenced with sufficient zeal, but at the same time attended with unexpected troubles, which as yet we have not been able to surmount. In that case we shall give ourselves the pleasure of forwarding to you regularly the numbers of our new series.

"We trust your undertaking, of whose object we cannot speak too highly, will meet with the success and encouragement it so much deserves. We scarcely need to add how much we feel concerned in your efforts to extend the spread of science and civilization among the population of this vast and still so imperfectly known part of the globe;—indeed, science is not bound to any country or nation; its interest is common to all, and, on this consideration we take the liberty of requesting you to forward to us by the first opportunity convenient to you a few numbers of your prospectus, trusting to find by a regular circulation here, or in some other part of our possessions, subscribers to your journal."

THE
JOURNAL
OF
THE INDIAN ARCHIPELAGO
AND
EASTERN ASIA.

INTRODUCTORY REMARKS TO A SERIES OF CONTRIBUTIONS TO THE ETHNOLOGY OF THE INDIAN ARCHIPELAGO.*

THE Indian Archipelago possesses an extraordinary abundance and variety of materials for elucidating the most interesting and the most intricate questions in ethnology. A complete account of the different races by which it is inhabited would furnish results applicable to the investigation of the connection of races in every other region of the world. It would, in fact, enable us to construct a science of ethnology, by the principles of which, based as they would be in the unchangeable physical and moral nature of man, we might traverse in greater certainty those human provinces where a deeper darkness hides the traces of early history. Without such a general science, the investigation of the origin and relations of particular groups of human families, must continue to be attended with many liabilities to error. In many cases it is so difficult to decide whether certain characteristics in lan-

* It is not the object of this paper to give any general account of the Human Races in the Archipelago and their respective origins and relations, but simply to offer some observations on the nature and scope of the enquiries into which we shall be led in considering particular races, on the spirit in which we think they should be conducted, and on the intrinsic interest of the languages of even the rudest tribes.

guage or manners are original or derivative, that nothing but a large accumulation of marked points of resemblance can enable us to draw a conclusion respecting the connection of two races; and this conclusion must, therefore, be postponed long beyond the limit at which, if we were in possession of a body of ethnological laws, certainty, or as much certainty as the subject admitted, would be attained. It is true that, as in all other sciences in which man's free agency is the most important element, approximative rules only can, in many cases, be expected. But every well based approximation becomes a valuable practical principle in suggesting and directing enquiries, and is a stepping stone to wider and deeper generalizations.

Much more has been done to systematize the physical than the moral facts of Ethnography. It may indeed be doubtful whether materials have anywhere been accumulated sufficiently full and exact to warrant an analysis of the latter, and whether any attempt to do so in a rigid manner would not lead to a stilted and dogmatic mode of viewing a subject in itself so pre-eminently expansive, irrepressible and mobile.

A review of the facts that would enter into a complete account of the inhabitants of the Archipelago might, if made with a constant reference to the principles of human nature, enable us reduce to a distinct and palpable form our conception of the limit up to which separate isolated communities, left to the mere operation of similar external circumstances, have parallel psychological developments so long as their developments last. The correct definition of this limit, with such strictness as the subject admits of, must be the basis of this department of ethnology. One of the first problems therefore which is presented to us, is to shew, from the survey of a sufficiently extensive field, how far the common attributes of man tend to originate similar ideas, habits, and usages, and how far to develop these in the same mode. It is only when we have determined this that we can take our stand upon its solution, and confidently distribute the facts observed in any region into such as are wholly referable to those attributes, and are to be rejected for comparative purposes, and such as lie beyond the limit of parallel development, and are the true materials for all reconstruction of history from living records. It is in this field, where necessity and

reason have released man from their inflexible bonds, and given him over to the capricious and protean power of accident, fancy, and taste, that we must find the evidence which tradition has lost. All that lies without it belongs to the common history of man. It is here that we shall find the particular history of races.

A more radical and comprehensive division would be into purely psychological and ethnic facts,—the former being stripped of any peculiar form or colouring, common to all men and all nations, and those with which the moral philosopher concerns himself,—and the latter being those which, although often the same as the former, are invested with a peculiar intrinsic force, or manner of manifestation, by the character of each people.

It is because Man is essentially, even in his lowest or normal state, a shadow of the Divinity, and a mirror of all nature, capable of an infinite perception and reflection of the sensible, that he creates a language as spontaneously, variously and luxuriantly as the earth arrays itself in vegetation. Hence, to the developement of language great general mental and moral advancement is not requisite. A fine sensuous or perceptive organization, unaccompanied by any exertion of the inventive scientific faculty in acquiring an increasing power of adapting physical forces to human purposes, is capable of evolving, or will necessarily evolve, a language as varied as external phenomena, the sensible action of these on the race who possess such organization, and the action and reaction of their nature. But although the possession of a rich language by a rude tribe is no evidence of derivation from a higher civilization, the inflexions of which the voice is capable are so numerous, and the particular sounds which may be adopted into the language of a tribe must be so much a matter of accident or peculiar organization, that the language itself may present the most important materials for ethnographical researches. It is true that the flexibility of the voice, as it so easily created one language, may as easily create another, and that, in some cases, the preservatives of a language may be so deficient as to allow of its undergoing successive changes, ending in an obliteration of the original form. But this case, although it has sometimes happened, must be rare. The force of habit and imitation form a grand counterpoise to the fertility of human creativeness, and, while circumstances remain the same, man remains imprisoned in the network

which he has woven around himself. The person of the savage, and the mind of the civilized, man must first wander far into new realms of action or thought, before he can loosen the ties of a language once produced.

Every language contains within itself the evidence of its own immediate origin and progress; and it can hardly admit of a doubt that when the same minute, patient and reflective observation and analysis that have constructed a science such as chemistry, botany or zoology, are applied by numerous labourers, as they already are by a few, to language, the power of reading that evidence will be acquired.

A comparison of usages and habits may often throw light on ethnological questions even when the affinities of language are wanting, and where these exist, may come in to fill up those blanks which their deficiencies have left. Habits and customs are sometimes more deeply rooted than language, and survive unimpaired many changes in it; although the reverse also happens. They are more immediately connected with the mind and less subject to physical accident; while, on the other hand, they are more easily changed thro' foreign influences, or the self-agency of the race. If a number of families of the same uncivilized nomadic race were scattered about, in distant localities, in a region similar in its general physical geography, they would perhaps retain their original unity of customs longer than their original unity of language. But there are such remarkable instances of persistency both in language and in customs that we can hardly yet form any opinion on this point. Races, the character of which has once been formed, and which remain in a torpid mental condition, may change both in language and customs without undergoing much or any radical transformation. But while isolation and dispersion would give free scope to the operation of those organic causes which produce differences in pronunciation &c. and mental torpidity would disable the race from resisting their influence, the same torpidity would cause an adherence to customs independent of organic influences. If such a race, in possession of some simple arts and customs, such as the mode of procuring fire by the friction of one stick worked rapidly up and down in a hole made through another, the use of the sumpitan, and some practice connected with religion—such as circumcision, filing the teeth, or making large opening in the ears,—gave off families who were scattered through wide forests,

and constantly split and subdivided at every generation, instead of uniting into settled communities, these arts and customs, being independent of external influences and placed by their nature beyond the reach of forgetfulness, would not readily be obliterated. On the other hand, every defect and peculiarity in the physical and moral organization of an individual would exercise an influence on language. A single pair who were sluggish in mind, taciturn, and defective in memory, might occasion the loss, in one of the divergent lines, of many words, and when the ideas of which these had been the expression dawned on the more vivacious minds of some of their offspring, they would invent words anew. In communities there is a general social prototype on which every person is formed. This great fixed life-mould imprints its shape on every fresh member born into the community, and gives a sameness of direction to the wild and luxuriant growth in which nature indulges when free from such restraint. But even in communities we see great differences in the command of words possessed by individuals, and in every family, excluding the classes which are educated to a similar stage, we see the abundance, style and matter of conversation to be influenced, more or less, by the idiosyncracies and habits of the parents. How many thousands of uneducated families are there in England, which, if transported to the jungles of Borneo, would carry with them the use of but an insignificant fraction of the English language, and even that little would be changed or ultimately lost if their social were supplanted by a nomadic disposition.

A nation portrays its existing condition better in its manners, habits and customs than in its language. The expressions which were once a literal reflex of the former may remain, but, with reference to the present, they may have become entirely figurative. It is true that habits also lose much of their primitive significance, but it cannot be so generally and entirely forgotten as that of words so often is.

A close comparison of the customs and manners of the different races of the Archipelago promises not only to be highly interesting in itself, but will certainly tend to clear up many of the doubts, and dispel much of the darkness, which hang over their early and unwritten history. This comparison cannot be made without a full and minute account of the characteristics of each race. Traits which the general traveller, or the writer who merely

seeks to entertain his readers for the moment, would pass over as trifling or suppress from motives of delicacy, cannot, with any safety, be omitted if it is desired to advance science. While no man who has such an object would describe the vicious prurencies of passion, he will not consider that he deserves censure by describing as facts what nature allows to exist without offence to modesty, however different the habits of his own nation may be. Whatever the observer finds as a general characteristic of a people ought to be noted, because it is impossible to say which facts are the most important for purposes of comparison. A fact which his own knowledge or taste would lead him to reject, may be one which, in itself or in connection with others, is a record of times antecedent to those in which the more striking peculiarities originated or received their existing shape, and the true value of which may remain undetected until a careful investigation of some other country discovers the presence of similar records, and opens up chapters of the past which tradition has forgotten, but which may thus be better authenticated than those which rest on tradition. Every one who has interested himself in comparing any people with which he has the means of being personally acquainted, with an account of others apparently related to them, must have frequently experienced a keen disappointment when, after detecting traces of a remarkable resemblance in traits of character or habits promising to lead to important inferences, the chain of analogy has suddenly dropped from his hands, from the writer of the account dismissing the subject as undeserving of further remark. Books of travel in little known countries, which should be a record of every thing which the traveller can observe, are too frequently a simple reflex of what interests himself or what he think may amuse the general reader.

The same necessity for a combination of minuteness and exactness of observation on which we have insisted, is enforced by higher considerations. There is no fact in itself mean or unworthy of notice. To say that a thing is common or mean is too often to say that our perception of it has become so dimmed from familiarity that we have lost the knowledge of its proper import and comparative value in the general scheme of things. If all allowed their minds to be enslaved by custom, neither poetry nor philosophy

could exist. To view a fact as underserving of attention is to divorce it from its union with the living whole, and place it in a region, unknown to being, where things may exist from and to themselves. . If we would seek to look upon truth face to face, we must cultivate a spirit of observation which no details can exhaust, and for which nothing is too minute so long as it may be the subject of discrimination. Devoid of this spirit, we shall every where stop short at half truths, satisfied that we have mastered the subject of our research. But this is an attitude which it is not given to man to assume in relation to any thing in which nature plays a part. He never has reached, and it is to be hoped never will reach, in any direction, that point at which the spirit of being says,—thitherto shalt thou come but no farther. Every man may advance as far as his own organization and the science of his day will carry him, and new and beautiful ideas are sure to reward his toil; but unless the pride of knowledge weds him to a delusion, he is never left to the cheerless reflection that he has reached the bounds of science. On the contrary, he feels that he stands on the brink of a measureless unknown, from the depths of which gleams of still grander truths flash through the inner darkness of his being, and connect him with the infinite. These are facts which it is well to bear in mind whatever subject we may seek to investigate, but it is particularly necessary to do so when engaged in ethnic enquiries, because there is a strong tendency in our habits, sympathies and antipathies to obscure our vision.

All ethnography is in its nature more or less comparative. It is impossible to reconstruct the history of a race by limiting our views to the race itself. To a certain extent we may grope our way back to its normal condition, particularly through the medium of language,—and when our glottological discrimination becomes finer we may be able to do so in a strictly scientific manner,—but in races loppings do not long leave a scar or grafts retain their foreign aspect. The wound heals over. The graft, striking its fibres into the system and vivified by its life, loses much of its native colour and assimilates to that of the body of which it now forms a part. Every race is full at all times of the elements of change, and although at the epoch when we observe it, universal immobility may seem to have paralysed its vital expansiveness, we cannot be sure

that in former times it may not have repeatedly been excited to a partial activity, impressibility and inventiveness in different directions. Hence the absolute necessity of attending carefully to the condition of the surrounding nations, so far as light is attainable, at every successive stage to which our researches carry us back. In the Archipelago we can never free our researches from Continental elements. The history of the nations along the southern borders of Asia has in every era exercised some influence on the Archipelago; and we may be sufficiently impressed with the difficulty and importance of the international influences of the Archipelago itself, when we consider that while some writers have derived Malayan civilization from an original source in Menangkabau, others have referred it to Java, and others to Celebes, while two of the ablest,—Mr. Marsden and Mr. Crawfurd,—have busied themselves in endeavouring to exhume a great nation whose civilization preceded the Javanese, the Malayan and the Bugis, and impressed itself, more or less, not only in the Archipelago but over all Polynesia.*

The preceding remarks have chiefly related to the grand psychological elements of comparative ethnography,—language in itself and as an exponent of the character and condition of races,—and the other modes by which their life manifests itself sensibly. To attempt to assign a respective value to those various modes would lead us into too extensive a field. In the scheme of desiderata annexed to the first number this Journal, many of

Since this paper was written the writer has received a letter from Mr. Crawfurd, dated in June last, in which he mentions that he had just completed an essay “on the races and languages of the Archipelago and Pacific Island,” and which, we observe, was read to the British Association at its last meeting at Oxford. “The theory of Marsden” says Mr. Crawfurd “adopted by Humboldt and others of one original language prevailing from Madagascar to Easter Island among all the nations not negro, and the identity in race of the brown-complexioned men within the limits in question, is wholly groundless, and a main object of my essay is to refute it. In a dictionary of the Madagascar of 8000 words, the number of Malay and Javanese words is only 140;—in one of the New Zealand of 4560 words, 103;—in a French one of the Marquesas and Omai of 3000 words, about 70;—and in a Spanish Dictionary of the Tagala of the Philippines of 9000 words about 300. These facts are of themselves almost refutation sufficient, to say nothing of the different phonetic character and grammatical structure of all the languages. Over the whole vast field under examination there are but two wide-spread languages that can be said to have dialects—the Malay and the Polynesian, the latter being essentially the same tongue in New Zealand, the Friendly, the Society, the Navigators and the Sandwich Islands, but in no others.”

these were enumerated, together with the principal physical elements of the knowledge and comparison of races. A glance at that scheme may satisfy every resident in this part of the world that he has the means of making valuable contributions to knowledge, and that it is only by the union of the information which different individuals have favourable opportunities of acquiring, that any approach to an accurate and complete body of facts, even relating to a single race, can be made.

To those who, convinced that the highest duty of life is the intellectual and religious cultivation of themselves and their fellow men, do not feel themselves excited to a keen interest in the Archipelago by its economical or scientific possessions, who may be indifferent to many of those relations which give it an importance to Europe, and who may be disposed to view its inhabitants as too remote from their sympathies and from the sphere of their duties, to merit attention, they have other aspects which rise in value the more they are considered, and which all may admit to be the most important.

A part from all ethnological aims, the consideration of any nation or community remotely related to our own must afford deep interest and instruction. If the highest natural study of mankind is man, as it certainly is, because he is the highest and most complex manifestation which the Deity has given of His being to our perceptions, the human race which we find inhabiting any region must be a nobler and more instructive study than its natural phenomena, however abounding in outward beauty or scientific interest. We see man's nature, which we had painfully endeavoured to understand and to extricate from the folds of self love, habit and prejudice, at once stripped bare, and rearranged in a vesture as proper to it as that of our own habits but widely different, so different indeed that at first we are little disposed to recognize ourselves in the new dress. When we surmount this repugnance, the peculiarities which had repelled us become a language which enables us at once to understand the nature of its possessors and our own. Traits which in themselves we might have viewed with indifference or contempt or dislike, when recognised as flowing from or reflecting that ancient inner nature of man out of which grew Adam's life and grows our own, are felt to be worthy of our entire attention. Nor need we always be sustain-

ed in our observation of them by a keen sense of this their deeper import. It is only needed that we look upon them through the sympathies of our common humanity, to find in them much to excite and interest our whole nature. As in the physical world we delight to discover beneath the most diversified phenomena, the same wonderful forces, so we may experience a high pleasure in detecting under new forms, and pursuing through all their varieties of manifestation, the same passions, tastes, and necessities, which have given to life its peculiar character amongst ourselves; in beholding all the ingredients in the draught of existence mingled as in our own lot, but in slightly varying proportions and in a slightly different cup. For, after all, we agree far more than we differ. The most passive temperament cannot exclude, the most active, cannot escape, the constant action of the common conditions of our being. In the sum of life these have so greatly preponderating a sway, that a reflective old man probably draws the same philosophy of existence from his experience, whether he happens to be a Hottentot or a Frenchman. Life is far more broadly and deeply coloured by the perceptions of the senses, and the action of those desires and feelings which operate in the same way under all forms of existence, than by all the refinements which civilization can give. When we look upon some half or wholly naked people as dark in their minds as in their persons, to judge from the absence of all arts, we are ready to conclude that they are in every respect at an infinite distance from ourselves, and in fact are as near the orang utan as they are remote from us. But these people have a possession, which unfortunately casual observation cannot discover, but which, when known, leads to a totally different conclusion. They have a language, which is an image of our own, and is the same great record of sensation, thought and feeling. It is an undesigned and unimpeachable witness, that, with them human life in all its main ingredients,—those which make up the burden of its experience,—is the same as with us. No fact appears at first so extraordinary and contradictory, as that a race which displays no invention and no science, and wants many of the lowest arts, should have a harmonious and finely organized language of many thousands of words. The contradiction, however, lies in our own ignorance and prejudice, and the fact, when considered with all that it implies, li-

terally speaks volumes against the habit, in which we too often indulge, of viewing such races, not from the basis of a common humanity, but from the pinnacle of our own advantages. But their manners, habits, and customs are as capable as their language of being translated into ours, and in such translation all may find interest; while, if a deep sense of the brotherhood of man, and of the duty of those who have received more light of any kind to hasten to impart it to those who sit in darkness, should breed in us a longing to excite and fertilize their stagnant existence, we shall soon learn that, without being able to impress them through the medium of their habits as of their language, we can never reach the spring from which all change must flow, and which never dries up, but is only choked by what it has brought from the depths of human nature to the surface of life; as indeed it is apt to be in every nation, and with every man. If we are warmed and incited by a true spirit, our own gain is great. It is the highest end of civilization to bring us back to that open and impassible disposition of our nature, which every race must have possessed while its language was fresh and growing. Nothing so powerfully assists in disenthraling the mind from the trammels of language as the study of another language, when we view it not merely as an acquisition to be made by an effort of the memory for the purpose of communication, but as the most noble and spiritual of all human creations; as the immediate growth and outcome of all the inner powers of our nature; as the grand record of the early and truly poetical life of man, when the fresh and vivid impressions of existence possessed all the mind, and wrought within it strongly, till it could contain them no longer, and they were bodied forth in sound. If we seek the language of any island or mountain group of the Archipelago as the most complex, subtle, and beautiful production which nature there presents, and full of mysteries provoking thought and veiling deepest truth, we shall be rewarded by feeling our own nature quickened and expanded in the pursuit, and life becoming at once more intimately and wonderfully related to the shews of the external world, and more closely and immediately resting on the spiritual being in which we and they exist. The fresh breath of nature, moving in the language, will awaken a living motion in our own, and that which lay stiff

and dead between us and so much of reality will as of old flow like music, expressive and suggestive; definite in its strain, while revealing, not hiding, the infinite fullness which nature yet holds for man.

Our knowledge of the languages of the Archipelago is so partial and incomplete, that the efforts of all who desire that its existing condition and past history should be understood, ought, in the first instance, to be zealously directed to the acquisition of copious vocabularies. Even of the languages of the leading races we are, after a long period of close intercourse with them, most discredibly ignorant. We are not even in possession of more than a half probably of the Malay, while of the aboriginal languages of the Malay Peninsula, that is of the ante-Malayan tribes, we have only a few specimens. We shall merely guess at the history of the Archipelago, until the dialects of these and all the other tribes inhabiting it, have been collected and compared. It is greatly to be regretted that some of those who could co-operate in the most effectual manner in this work, do not appear to be sufficiently impressed with the paramount importance of the languages of the Archipelago, and the advantage of making public every fresh acquisition. Several works, including a translation of the New Testament, have been printed in one of the Dyak dialects, of which we are notwithstanding without vocabulary, dictionary, or grammar.

TEMMINCK'S GENERAL VIEW OF THE DUTCH POSSESSIONS IN THE INDIAN ARCHIPELAGO.*

THE principal revenues of our possessions in the Indian Archipelago are derived from the undermentioned sources, viz.

1ST. VARIOUS IMPOSTS.

The capitation of the Chinese,	f. 41,725
The tax on the killing oxen, buffaloes and sheep, .	315,966
" " " hogs, ..	156,132
" " on the consumption of fish,	179,546
Farm of the fisheries,	155,388
Tax on the consumption of arrack,	293,882
" " palmawne,	13,244
" " indigenous tobacco, ..	120,000
Bazar (market) duties,	3,044,974
Tolls,	81,000
Farm of the small isles in the bay,	7,812
" " Birds Nest (Salangane),	70,004
Pawnbrokers offices,	334,866

2ND. TERRITORIAL TAXES.

Land tax of the Javanese communes,	f. 10,047,121
Farming of the felling of wood,	36,560
Impost on the fisheries,	192,331
Tythe,	97,741
Land tax on European properties,	314,957

3D. VARIOUS RECEIPTS.

Tax on imports and exports,	f. 5,171,100
5 per cent additional for maritime works,	256,775
Taxes on consumption,	70,332
" tobacco,	15,000
" the port and anchorage,	96,215
" timber,	317,434
" succession,	55,021
" transcription,	178,625
" private bazars,	6,098
" passage,	20,000
Capitation of Slaves,	24,768

Taxes on horses and carriages,	66,365
Tributes of the native princes,	39,445
Taxes on public auctions,	290,143
„ on the Chinese games Pho and Topho, . . .	445,220
The Government printing,	58,000
Posts, horses, and letters,	218,722
Monopoly of opium,	9,560,165
Sale of birds nests (Salangane),	221,250
„ timber for construction, &c.,	505,700
Monopoly of Salt,	4,609,908
Sale of Rice,	516,525
„ Palm Sugar,	90,620
„ Gunny bags,	167,860
„ Gold and gold dust,	50,900
„ Tin,	3,000,000
„ different articles,	115,900

These different figures, which are extracted from the accounts of 1843, do not comprise the proceeds of the colonial commodities sold in Europe. We enter on this subject into some general details.

The expences presented for 1845, as well for India as in the mother country, are as follows,

1st. Government *f.* 482,000.—2d. Department of Justice *f.* 506,252.—3d. Superior and inferior colleges *f.* 282,020.—4th. General administration and Police *f.* 3,460,610.—5th. Agriculture, public worship, arts and sciences *f.* 500,706.—7th. Finances and cultures *f.* 38,317,112: into this amount enter: *a*, charges for the despatching of products destined for the mother country *f.* 902,533;—*b*, interest and repayment of the arrears of India (at a rest of capital of *f.* 2,656,317-51) *f.* 400,000;—*c*, rent and repayment of the loan of 1836 *f.* 137,685;—*d*, interest and reimbursement of the debt of Solo *f.* 81,082;—*e*, interest and repayment of the debt according to the laws of 24th. April 1836, 11th. March 1837 and 27th. March and 22d December 1838, *f.* 9,800,000;—*f*, rents and reimbursement of the obligations of the Indies $4\frac{1}{2}$ per cent *f.* 2,850;—*g*, interest and reimbursement of the debt of the *Handelmaatschapij* [Trading Company] *f.* 2,500,000.—8th. Department of war *f.* 8,643,834.—9th. Department of the marine *f.* 1,642,154.—10th. Pensions and benevolent establishments *f.* 995,172.—11th. Expences of different kinds *f.* 2,535,367.—12th. Unforeseen current expences *f.* 500,060.—13th. Extraordinary expences and public calamities *f.* 500,000.—14th. Expences for Sumatra *f.* 2,640,921.

—The total of the expences for administrations amounts thus to f. 75,494,285.

From the moment that the finances of India were able to place at the disposal of the central European Government a considerable annual surplus, it became necessary to value the problem: *in what shape can this excess, composed of a money exclusively colonial of paper and copper, be conveniently transmitted to its destination?*

The system called *des cultures*, introduced in 1832 by the Governor General van den Bosch, is destined to render this transmission possible. The excess serves in the first place, to furnish advances to the contractors as well natives as Europeans, advances for which the Government demands no interest. In a country where capital is scarce and interest very high, ordinarily at 9 per cent, facilities of this nature are of immense advantage. These wise measures, and this unusual disinterestedness on the part of a Government, produce the most happy fruits. They are the source of a remarkable development of agricultural industry in the possessions of the State. The returns of these advances are made in commodities reserved by the government, and it is only then that the annual excess exists in a form that permits it to be sent to Europe.

In no other intertropical country has any thing similar been established. The promptitude of the results obtained is principally due to system of administration introduced into these colonies. Without the concurrence of former Javanese institutions, which have been prudently maintained and extended, it would have been impossible (to give an example) for the undertaker of a sugar manufactory, to obtain the certitude that, during the continuance of his contract, the neighbouring population would be in a situation to cultivate, at a reasonable rate, the quantity of canes necessary for the uninterrupted working of his mill. Deprive him of this assurance, and the enterprise would be wholly a hazardous speculation, in which no prudent man would risk his capital. These indispensable guarantees can be given by the government, of which the proof is furnished by what follows.

We come to speak succinctly of the village organization of Java: a few lines will suffice to give a clear and plain idea of it, and to make the utility of this organization appreciated in its application to cultures which it is intended to establish.

According to the ancient usages of the country, *adat*, the sovereign has the right of exacting from each *tjatjah* a contribution in money or in produce, or an equivalent quantity of labour; the go-

vernment which succeeded to this right can then exact it, in such or such locality, where the land taxes were paid in sugar cane or in all other agricultural produce.

The actual organization of the territorial impost has given birth to the possibility of putting this exaction in perfect harmony with the amount due by the contributors. The price of labour being known, it has been easy to determine the number of workmen to be furnished by the village to free it from the tax ; or rather, to return to the example before given, it was equally easy to fix the extent of land which the village should plant with rattoons, before obtaining by it a similar result. But, from the moment that the rate of this labour goes beyond the value of the debt exigible, the *tjatjah* obtains an acquired right to the equivalent of this surplus of the labour.

Thus, Government is able to give to the proprietors of sugar manufactories the certainty that the quantity of canes, required to feed their establishment, will be regularly cultivated by the surrounding villages. To obtain this end, nothing was needed save the single manifestation of the desire of Government in this respect, followed by an estimate serving to establish the basis of the calculation, of which the result is, that the *tjatjah* finds himself free from his land tax from the time that he has furnished a quantity equivalent to the labour represented by the plantations of canes.

Let us now pass in review the state of the new cultures so largely encouraged by Government and which have been ameliorated in a remarkable manner. But let us first cast a glance on the state in which these cultures were before and in 1830 and that which they produced in 1840 always in the hope of increasing prosperity which the results have not disappointed.

By the recapitulation furnished in the remarks on the modern history of Java, we see the company of the Indies pass successively from the condition of simple trading to dominion by means of exclusive commerce ; led, in order to maintain this system of monopoly, to make war, to conquer provinces, and to become finally sovereign of a vast extent of country.

If this Company after having conquered vast provinces had known to place itself at the height of the duties which sovereignty imposes it would have been necessary to have changed its system of administration and to cease to oppress its subordinates in order to enrich itself at their expence. It is but too true that it cared very little for the people subject to its authority, and it even appears that it never knew how to reap all the benefit from its commerce that a wise

and prudent administration would have ensured through large and more liberal views. It is even proved that its system was not based on a plan regulated in a stable manner; it favoured for a time such and such a culture, to be abandoned promptly when the revenue did not answer to its expectations; the price of a product rising, it interdicted exportation, and abandoned its right from the moment the profits no longer appeared to it sufficiently considerable; but, although more constant in the preservation of the monopoly of spices, it is not probable that they have ever taken into account the sums which the culture cost them.*

The lands which it possessed did not yield nearly so much as the fertility of the soil permitted, because they occupied themselves with great interests only under the care of employees whom they had not the talent of choosing well, and who were in haste to enrich themselves at the expense of those appointing them, who allowed them only a small salary. They trusted, for the produce of these lands, to contracts with Javanese regents; these contracts as well as the contingents wanting controul, furnished to the unfaithful employee the means of committing prevarication and frauds, and the Javanese saw himself subjected to many vexations.

Borne by the concurrence of unforeseen circumstances to a sovereignty of which it could not discharge the duties nor support the charges, oppressed with debts, and accumulating deficit upon deficit, it saw itself reduced to borrow each year the means of distributing to its share-holders a semblance of profit.

In this state of crisis, the urgency was felt of sending commissioners to India in order to judge upon the spot of the state of affairs. The delegates named for this purpose embarked in 1791. After a sojourn of three years in Java, these commissioners returned and on the 4th June 1795, submitted their report to the company which gave information of the real state in which they found the affairs of the Society; it then saw it confirmed by its agents that the commerce was nearly annihilated, that the financial resources were exhausted, and that in place of being productive of advantage, the Indian possessions were a heavy expence; it saw itself at this time overwhelmed with a debt of 84 millions of florins, of which 67 millions had been advanced by the Dutch nation.

The States-General of the United Provinces having acquired from

* We shall give some details respecting these cultures in the article on the geographical group of Banda vol. 2. [not yet published.]

1790, the conviction that the Company was destitute of the means to put a face on its affairs; the suppression of the charter granted to this association was submitted for deliberation by the Government; nevertheless it only took place in 1798 under the rule of the Batavian republic which annulled the grant given in 1602 to this Company; the State took upon itself the administration of all the inter-tropical possessions; the immense debt with which it found itself overwhelmed passed to the charge of Government; in the course of a score of years the Company cost the country more than 100 millions.

At the termination of the decline of the Company and when it came to abandon its power, Marshal Daendels saw himself charged, in the name of the new monarchical Government established in Holland, with organizing the possessions of the State in India. He entered upon this administration under the most unfavourable auspices, as may be learned from the precis which we have given of the modern history of Java.

Under the perhaps very absolute but, for the rest honest and firm administration of this Governor General, which dates from 1808 to 1811, we do not remark any amelioration in the finances, but a rapid progress took place in the civil and military institutions; he established our power upon a solid basis, and caused to be executed many works of public utility; but the vexatious circumstances of his position, during the long struggle against the English supremacy upon the seas, rendered it impossible for him to realize the hopes he had conceived for the re-establishment of the finances and the augmentation of the territorial revenues of Java. The financial results of these three years offered a very considerable further deficit, as is shewn by the following table

	In 1808.	1809,	1810.
The expenses amounted to,	f. 2,532,497. 36	f. 5,014,797. 11	f. 7,101,781. 76
and the receipts to, „	2,446,402. 98	„ 2,724,786. 67	„ 3,554,378. 67
The deficit is, . .	f. 86,094. 38	f. 2,290,010. 44	f. 3,547,303. 09

without reckoning the great quantity of paper which he put into circulation, as well as the sale of many considerable properties, a measure to which he was obliged to have recourse to meet considerable expenses.

When England made herself mistress of Java the first care of her government was to introduce there a new system based upon the ancient Javanese usages of the times of the Hindoo sovereigns; they were harmonised to the ordinances in force in English India. They granted to the village chiefs the right of dividing the land tax; the intervention of the regent of the district in financial matters ceased to exist, and the land tax was paid according to survey. This tax was levied at a *half*, at two fifths or at a third of the crop according to the fertility of the lands. As a proof that this system called *land rent*, and *tenement tax*, did not answer to its design, it caused a loss of more than 21 millions of francs, during the three years of the occupation of Java by the English, as the subjoined table shews.

	From 1812 to 1813.	From 1813 to 1814.	From 1814 to 1815.
Expences, Rs.	9,107,700. 71	8,061,331. 35	9,092,418. 60
Receipts, "	5,399,745. 42	5,889,624. 01	7,520,930. 95
Deficit, "	3,707,955. 29	2,171,707. 31	1,571,487. 65

When the island of Java and the other possessions in these seas returned, by the treaty of the 13th August 1814, under the power of the Netherlands, three Commissioners were sent to India. The Baron van der Capellen nominated Governor General formed part of this new commission, charged with the re-organization of all parts of the administration.

The territorial tax introduced by the English was for the present retained, later it was modified. We immediately discovered an extreme confusion in the direction of finances, so that it was found necessary at the beginning of 1818, to establish a new period of administration, and to make concessions upon the arrears of the three years preceding. In place of collecting the tax from each rate-payer, we contracted with the chiefs of *desa*, by stipulating the sums for which they should be accountable to the treasury. We continued to follow this system of collection until 1830.

In order to have an opportunity of judging with precision and in an equitable manner, of the value of lands, the resident of each province as the delegate of Government, and the village chiefs with the elders representing the rate-payers, were charged to make the assessment, and to pass a decision in the Dutch and Malay languages, after which each chief of *desa*, assisted by the elders, proceeded to divide

the fields and superintend the cultivation and gathering of the different cultures. A discount of $8\frac{1}{2}$ per cent upon the receipts served to indemnify the responsible chief. The tax-payers had the option of paying the tax in money or in produce, according to a fixed rate. The native was left the free disposal of his person and his labour; but the rights of the regent (*Adhipati*) had to be sacrificed, and the chief of the village (*Petinggi*) found himself in direct relation with the government.*

I would depart very much from the conciseness adopted as the basis of this work, if I should enter into details upon the different cultures which have been successively tried†, and if it was necessary to give an account of the difficulties which were raised by the natives against the plans and dispositions more in harmony with their well being and liberty which it was proposed to favor. It ought, however, to be mentioned, that by the new regulations the Javanese aristocracy found themselves lessened; that the measures taken with liberal views clashed with certain interests; that they were not founded on the ancient customs of the country, while they were contrary in certain points to the *adat*, always held in veneration by the natives of all classes; so that the Government quickly saw that its new measures did not answer to the ends which it had flattered itself of attaining.

The fall of the colonial merchandize in the European markets; the uncertain state of the finances; the heavy loans which it was necessary to contract; the war against Dhipo Negoro and many other causes, served to increase the debt in a frightful manner; *the interest payable amounting to more than three millions of florins*. It was then, in regard to the state of the finances, as in the time when the old Company of the Indies were under the necessity of abdicating their power.

The trade although completely free, dragged on painfully and experienced miscarriage after miscarriage; many mercantile houses in the principal towns liquidated their affairs with losses of 20 and 30 per cent; some found themselves insolvent. The magazines of Government were encumbered with colonial produce; the imports of articles which India required from Europe were not made regularly; the state derived not a single benefit from its possessions, and ship ow-

* It is said that Java and its dependencies reckons 16,000 of these chiefs of villages; I have not been able to verify this calculation, I judge it below the effective number.

† See Van Hogendorp, "Coup-d'Oeil sur l'isle de Java, Cap. 6. *Of cultures already established, and of those which could be introduced or extended in Java*,

ners sailed their vessels at a loss, or in the uncertainty of returns always of less value in our markets. In this state of crisis, recourse was had to a new privileged commercial association, and the company, called the *Handelmaatschappij*, was created in 1824.

Liberal theories, and philanthropy may, in certain points of view in our days, condemn the establishment of a privileged society. The results are these, they serve as an evident proof of the resources which the Government can dispose in favor of the working and industrious classes of society, and to spread prosperity in the country by means of the resources which it has the disposal of. Its utility will be recognized by those who take a part in manufacturing industry, and the unprejudiced merchant, who places himself above the common sphere will become convinced that a small state could not chose a measure more efficacious for portecting its exportation trade, more appropriate to maintain its influence in its transmaritime possessions, and able, at need, to serve as a counterpoise to the invasion of colossal competitions.

We learn the following from the Court de Hogendorp relative to the fertility of Java, and to the resources which it offers.*

"The soil of Java does not present any products which are exclusively proper to it; but such is its happy fecundity, such is the goodness of its climate, that all the productions which Providence has granted to other countries situated between the tropics, can be transplanted there and cultivated with success. If the imperfect knowledge and limited means of the Javanese have only until now permitted them to cultivate rice, coffee, tobacco, siré, katchang, maize and a little cotton, we may reasonably hope that a gentle and enlightened persuasion, will easily lead them also to cultivate pepper, gambier, cardamums, and the many kinds of tobacco and cotton on procuring for this purpose seeds from Virginia and Brazil; whilst the culture and the manufacture of indigo, sugar, the extensive culture of cotton, coffee, tobacco, the manufacture of potass, of rum, &c., may furnish to European industry powerful means of augmenting products suited to exterior commerce and immense sources of riches and prosperity."

We further add what the same author tell us, "That in 1830, we could calculate that only two ninths of Java were cultivated, and that the other seven ninths still presented a vast field for improvements;" which this judicious observer is of opinion "should be in-

* *Coup-d'Oeil sur l'île de Java*, published at Brussels in 1830.

roduced with discernment, and without hurting or shackling the system of duties followed in this country."

In the domains ceded to private persons by sale, particularly in those of a large extent, it was calculated in 1830, that the uncultivated lands were in proportion to those already put under cultivation as 7 to 1, and in the domains where remarkable improvements had been introduced this proportion did not exceed 7 to 2.

We perceive by the view given of the state of the finances before 1830 that the different systems under which our Indian possessions have been mercantilely managed, could not furnish in the long run an assured benefit to the Government. The system adopted since that time has given birth to the hope that this expectation may be realized, and that the state may count upon sure revenues which the agricultural industry will annually furnish to the chief treasury; without doubt a very remarkable result, perhaps unique in the history of distant possessions which have not been colonized.

The system of monopoly of the Company; that of the *corvées* under Marshal Daendels; the registration laws of the *ryot war system* of the English; those, mitigated and more liberal, introduced after the English occupation; the strict economy put in practise by the Commissioner General Du Bus,—have not answered to the expectation of the European Government.

General van den Bosch, who was clothed with the authority in 1830, deemed it necessary to administer the interests of Government, in a different manner from that followed by his predecessors. The best means of attaining this end appeared to him to be to draw all the advantages possible from the astonishing fertility of the soil by means of agriculture, to make use of the balance of means for the support of the treasury of the mother country and to bring the new plans into unity with the old customs or *adat* of the Javanese.

Some details are necessary to enable the reader to be able to judge of the basis on which this new organization rests, which has received the name of *the system of culture*.

The civil administration of the Javanese under the Matarm empire, possibly already under that of Majapahit, admitted of the lands belonging to a *desa* being divided in an unequal manner amongst the inhabitant. A part of them are excluded from all prosperity and are dependant on the proprietor who has the right of disposing of their services in exchange for the cession of a portion of ground which is furnished to them to provide for their wants. When the subordinate is not required for agricultural work, he must pay to his chief or to

his *tjatjah* the half of the harvest; if he performs work he is exempt from this tax.

The old sovereigns of Java were masters of the whole soil, at least to the extent of the recognized right by which they had the power of levying on the cultivated land a tax consisting of a part of the crop, or they could exact personal service. Nevertheless the proprietor had the power of freeing himself from this tax by restoring the land to the commune, the latter appropriating to itself the profit under the burden of the charges. The tax as well as the forced labour were regulated by *adat*, and consisted as regarded the prince in the 5th part of the crop, or in labour calculated at the rate of 66 days work per annum. During the English occupation they acted contrary to the *adat*, by exacting *the half, two fifths, or one third of the crop, instead of one fifth.*

Indolence is the supreme happiness of the Javanese, while he partakes with all men in the desire to augment his enjoyments at the expense of the labour which he believes obligatory upon him. According to this basis, it is established as a principle that a *desa* is freed from the land tax by relinquishing the fifth part of the rice fields for the cultivation of a product in demand for the European Markets; that the *desa* should enjoy one part of the benefit whenever it is proved by estimate that the produce of the cultivation brings more than the amount of the land tax due by the village; that in case of failure of the crop the loss should be borne by the Government, provided the carelessness or laziness of the cultivators were not the cause of this loss of the crop.

Seeing that it is not sufficient to simply raise crops of these commodities with the view to obtain a mass of produce for the European market but that this must be done with the necessary care, it was indispensable to take means for satisfying all the exigencies of the trade. In order to arrive at this, capital was necessary as well as knowledge and care in matters of cultivation. The capital and the industry of Europeans and Chinese were so strongly bound by interest to these undertakings, that by their concurrence we were in a condition to obtain a careful manipulation of the principal articles.

In order not to overburden a part of the native population with a too heavy *corvée*, care was taken to distribute the labour (for example in the cultivation of the sugar cane) so that one part of the inhabitants of the *desa* were charged with bringing the cane to maturity; another had the reaping, and a third were charged with the transport; finally, whenever necessary, a fourth fulfilled the labour of manufacture,

and only in the localities where the workmen were not in sufficiently great numbers, the last were paid a fixed quantity of rice and salt, over and above the remission of the tax. As the Javanese preferred to work under the immediate surveillance of his countrymen, this favor was granted to him. All the care which the culture, the harvest and the manufacture demanded were entrusted to the vigilance of the European heads. In the districts where the cultivation of the sugar cane had existed for a length of time, permission was given to the Javanese to manage their own ground, under the obligation of paying the tax with which the rice fields were charged; in the localities where the rice fields are not much extended, the right of draining the soil in the higher districts was accorded to the population.

The difficulties which were raised by the Javanese of the provinces of the interior to the application of this system were speedily removed by the simplicity of the means put in operation. After having set apart the fifth part of the rice fields of the *desa*, or after having chosen elevated soil fit for the culture, the work was distributed amongst the population in the following manner. In order to execute the necessary work on an extent of soil of one *bouw** the *desa* was obliged to furnish four men, two of whom were obliged to work alternately for a week or a month according to the arrangement made. The working men had as superintendents Chinese called *mandoor* (literally master servant) who were under the surveillance of the chief of the village.

A part of the population employed in these labours is entrusted with them until the produce is perfectly ripe; then they are free from all other work; all the other employments are regulated on the same footing. The manufacture is ordinarily entrusted to free workmen; if there are none, the labour is performed in the manner we have just mentioned.

We finish these details by the application of this system to the cultivation of sugar, already taken as an example in the foregoing pages.

The produce of a *bahu* planted with sugar cane may be stated at a minimum of 15 piculs.† Consequently an establishment which furnishes 6000 piculs of sugar requires an extent of 400 *bahus* of

* In Javanese, *bahu*. This measure is equal to 71 acres or square decametres; four *bahus* make the *djung*.—A picul is the weight of 125 lb.s (Dutch), and 27 piculs form the *koyan*. This last measure contains more or less piculs according to the different articles and localities: but a *koyan* of rice is always of 27 piculs.

† The *bahu* planted with canes ordinarily furnishes from 20 to 21 piculs of sugar; although sometimes, though rarely, it produces as much as 25.

land, on which 400 men require to be employed daily; from which it results that 1600 persons who possess 2000 *bakus* of rice fields are exempted from the land tax.

A man cuts from 500 to about 550 canes, of which 2000 to 2200 are sufficient to furnish a picul of sugar, in which way 4 men are required to cut the quantity of canes necessary for a picul of sugar. Considering that the mill is only at work for 10 months in the year, the produce of one day is calculated at 20 piculs, which occupies 80 cane cutters, so that 320 persons receive exemption from the tax by this labour. For the transport of the canes to the mill 140 loads are reckoned, each of 320 canes. A cart (*pedati* or *keser*) makes ordinarily two trips a day which makes the number of carts belong to the establishment 70; each cart is accompanied by one man which makes 280 persons exempt from the tax. There are 40 others required for cutting the wood used in the furnaces, and when the manufacturer from want of free workmen is obliged to employ the inhabitants of the *desa*, he requires 50 men daily; thus more than 200 men are freed from the tax.*

RECAPITULATION.

For the field works,,	..	..	..	1,600 men
„ cutting the canes,	..	..	..	320 „
„ the transport of the canes.	..	..	..	280 „
„ cutting wood &c.	..	..	..	40 „
				<hr/>
				2240 „
The manufacturer employing workmen furnished by the village,	..	..	..	200 „
				<hr/>
Total, .				2,440 men

of which only 610 are employed daily.

The 2240 men enjoy the remission of the tax calculated at *f.* 7½,

* I mention in this view the conditions stipulated by the first contracts with the sugar manufacturers. Since 1834 these contracts have undergone some modifications owing to the improvement of the apparatus and to the facility with which the manufacturer now procures free labourers; the taste for agricultural labours comes more and more into favor amongst the Javanese. The old carts, *pedati*, are also of a better construction. They are now made of iron.

which makes *f.* 18,300. They may be required 300 days in the year; but it may be that the mill requires repair or is stopped by other causes, so that we may calculate on 250 or 260 working days which makes 65 days work per head, calculated at the ordinary price of manual labour in Java, 12 Dutch cents per day. This advantage is not the only one which the Javanese employed on a sugar estate enjoys. First, he is freed from the tax, and preserves the full enjoyment of the crop of his rice fields. If he is owner, possessing for instance four *bahus* of rice fields, he has the power of employing at the establishment, one of the four workmen (*galiding huwang*) who are at his service, the three others remaining employed on the work of his fields, he grants to them as wages the half of the produce of the four *bahus*; while the workman employed in the establishment receives the other half. The owner in this way saves $\frac{1}{4}$ of the land tax which he owes for his rice fields.

Finally, it is proved that the new system permits the Javanese to execute less work while enjoying the same benefits; but from labour equal to that which he is obliged to expend in his rice fields, his profit is considerably augmented.

Some fear has been entertained that by the employment of the fifth part of the rice fields for the more precious cultivation, that of rice would suffer and that this produce would become less abundant. The results prove clearly that the cultivation of this grain is not diminishing, that the export is still considerable, and even increases yearly.

The calculation established and the balance struck of all the expenses, it results that the picul of sugar costs to the manufacturer *f.* 7. 50: the government pay for it *f.* 8. 50 or *f.* 9 copper. We have already mentioned the advances without interest made to these establishments, but with security for the capital, which ought to be returned in two or at most three years, by means of the deliveries of sugar. The Trading Company (*Handelmaatschappij*) receives this produce, with all the other articles of which the culture is reserved, in the warehouses established for this purpose in different parts of the Island, where they are placed under the surveillance of its agents, who take charge of the loading of the vessels chartered by the Company; the constant and regular navigation of these vessels affords a sure gain to the owners. The merchandize on its arrival in Europe is sold by public auction in the two principal ports and at two fixed times in the year.

In the pages destined to place before the eyes of the readers some results obtained by the different cultures, it will be necessary for me to enter into a part of the details which are presented by the official statements and reports made to Government on the state of the cultures in 1840 and 1841.

We place at the head that of rice, a nutritious product which for a very great number of years has served as the principal food * not only in Java but also in the other Sunda Islands. Java is the granary of plenty for all the Archipelago; and the Company occupies itself in this culture with solicitude, well persuaded that a scarcity of rice might be fatal to its power. Ordinances to encourage and to increase this branch of agriculture, have been promulgated at different times by an authority called to watch over the physical well being of many millions of inhabitants.

We now state that the produce of this culture has always been on the increase, while at the same time others more valued in commerce have been established at the expence of the rice fields,† and we shall give proof of this.

Taking as the basis of comparison the land tax (too uncertain as it is for establishing a just view) we find that in 1818 the sum total of the tax upon lands brought in 2 millions of florins to the treasury; from 1820 to 1830 it was raised to 5 millions, in 1840 to 8 millions; and in the table of revenues for 1845 the land tax of the Javanese communes amounted to more than 10 millions. As an evident proof that the culture of rice, of which it would be difficult to fix the quantity produced annually, increases considerably, we may mention that the exportation in 1840 was 1,488,350 piculs of 125 lbs.

The foregoing exportation does not comprehend the crops in the provinces of Batavia, of Buitenzorg, of Soerakarta and of Djokjokarta. *The products of these two last provinces do not form any part of the figures of the following tables.*

* In the time of the Company the Javanese population still resorted for food to maize, or to roots the use of which was still less conducive to health.

† The rice is cultivated in Java in three manners principally, the name of *sawah* is given to the rice fields which can be irrigated artificially; *tipar* or *tagal*, are elevated but level grounds, and *gagak* or *ladang* are cleared forest grounds. The two last only give one crop; a second crop may be obtained from the *sawah* which then most commonly consists of *katjang* from which oil is extracted, in *kapas* or fine cotton, and in *ubi* a kind of potatoe.

CULTURE OF RICE.

	In 1840.	In 1841.
Number of Residencies in which rice is cultivated,	18	18
„ of regencies,	69	68
„ of districts,	414	414
„ of <i>desas</i> or villages,	39,931	36,296
Amount of the population who take a part in it, without distinction of caste, ..	6,704,797	6,857,372
Number of families &c.,	1,466,845	1,475,675
„ of families who devote themselves to the cultivation,	1,150,416	1,146,083
„ of men bound to obligatory service,	1,321,767	1,325,746
Cleared grounds in <i>bahus</i> of 71 decametres	1,470,047	1,540,054
Upon this extent the population had cultivated for the government, in <i>bahus</i> of 71 decametres,	78,182	74,277
Extent of fields which the population had cultivated on their own account in <i>bahus</i> &c.	1,286,139	1,381,216
„ of lands in fallow in <i>bahus</i> &c., ..	105,726	84,561
Produce in piculs of fields cultivated by the population on its own account, ..	21,273,278	23,810,573
„ average of a <i>bahu</i> ,	16½	17
Gross amount of the land tax of 1840, <i>fl.</i>	8,502,402	<i>fl.</i> 9,030,761
Extent of rice fields newly cultivated in <i>bahus</i> of 71 decametres,	10,328	13,561

I suppress here and in the other official tables of cultures, some observations as well as different indications purely administrative, and I take from the comparative results, the following details.

1st. That the number of individuals who are voluntarily employed in the works has increased by 152,665; the number of the families or *tjatjah*, by 8,833, and that the number of men destined to the forced work has increased by 1,979 individuals; while the number of the families who employ themselves in agriculture has decreased 4333. This last number had presented a too great increase from 1839 to 1840.

2ndly. That in general in 1841 a space of 70,007 *bahus* more were drained than in the year 1840. That the population cultivated on their own account 95,077 more, and the Government reserved for

itself 3,905 less than in 1840. The grounds in fallow offer an extent less by 21,165 *bahus* than in 1840.

3rdly. That in the 18 residencies the total produce of the crop has furnished an increase of 2,537,295 piculs of paddy, and that the average produce of a bahu has exceeded by a $\frac{1}{2}$ picul the produce of 1840 *

4thly. That the gross amount of the land tax has produced *fl.* 528,359 more than in 1840.

This comparative summary shows that the culture of the rice increases yearly, and that the average produce of the fields is continually increasing. These results have been obtained by the attention paid to the proper irrigation of the soil fit for this culture; and to the hydraulic works which the Government executes on its own account, in the parts of the island where rice fields can be established, and where they are required to feed a population whose number is still increasing yearly.

The official tables which present the results obtained by the other cultures appear here under the form of extracts; the most remarkable details will be pointed out:

CULTURE OF COFFEE.

	1840.	1841.
Residencies in which this produce has been cultivated in 1840 and 1841, . . .	20	20
Number of families destined for the labour, . . .	470,673	453,289
Trees which have yielded a crop, . . .	196,913,894	216,085,600
Trees which produced the average quantity of a picul of 125 lbs Dutch, . . .	280	248
Quantity of coffee furnished to the godowns in piculs,	706,258	877,444
Trees according to the reckoning made in the month of March 1841 and 1842, . .	336,922,460	329,898,936

The comparative result of this table shews that in the year 1841 the coffee has been gathered from 19,000,000 trees more than the number in 1840, and that the crop has increased by 171,000 piculs.

2nd. That in the month of March 1842, there were above 7 mil-

* The increase of the produce has been much more remarkable from 1839 to 1840; this produce is, for the whole crop piculs 2,653,855, and the average produce per bahu presents a difference of two piculs.

lions less of coffee trees than in 1840. This diminution is merely nominal, seeing that these trees have served to replace those which by their small produce, have to be suppressed in the low lands of the Residency of Baglen. On the contrary the increase of trees planted from 1839 to 1840 amounts to very nearly the same number of 7 millions.

3rd. That in the season of 1842 there was planted nearly 20 millions of plants; of which 12 millions are to serve to replace the old trees, and 8 millions are destined to extend this culture. It is calculated that this island will very soon be in a condition to produce a million of piculs or 125 millions of lbs. (Dutch) of Coffee. Previous to 1830 Java scarcely exported as much as 40 millions of lbs.

CULTURE OF SUGAR.

	1840.	1841.
Residencies in which sugar has to be produced,	13	13
Number of sugar manufacturies,	99	111
Families employed in sugar plantations, . .	148,247	150,895
Extent of fields in which the cane has to be calculated in <i>bahus</i> of 71 decametres, . .	31,989	33,668
Quantity of sugar obtained in piculs, . .	752,657	734,427
Extent of new plantations for the crop of 1842 in <i>bahus</i> ,	34,382	37,722
Average quantity in piculs; of sugar obtained per <i>bahu</i> ,	23½	21½

The results obtained in these two years have generally been very unsatisfactory for this branch of culture. Heavy and continuous rains, the imperfection of mills and of mechanics are the causes. The canes grow better and produce more abundantly in the Eastern parts of the Island, than in the other residencies.

It is a very general opinion that this branch of agricultural industry will be able to furnish, for the island of Java only, an export of a million of piculs of Sugar; already the calculated produce for the year 1842 amounts to 856 thousand piculs of the quantity anticipated. The improvement of machines and processes, the new contracts established with the cultivators, and the care which is bestowed to obtain the most perfect qualities, will serve to give a considerable development to this culture.

The quality of the Java sugar improves more and more, while at the same time the quantity produced increases considerably. In 1836 the sales by auction which took place in Europe, amounted to 313,058 piculs; in this quantity there was 35 per cent of brown sugar, 20 per cent yellow, 28 per cent gray, and only 17 per cent white. The latest sale made in 1844 afforded a quantity of 732,440 piculs, of which the qualities are divided into 16.5 per cent brown sugar, 18.2 per cent yellow, 11.4 per cent gray, and 53.9 white. From this result it is seen that the quantity sold is doubled, while at the same time the quality has reached a remarkable perfection.

CULTURE OF INDIGO.

	1840.	1841.
Residencies in which this culture is introduced,	9	10
Number of Factories,	728	728
Families occupied with this culture,	197,085	192,159
Extent of fields where the cutting has been made in <i>bahus</i> of 71 decametres,	40,844	38,829
Quantity of <i>bahus</i> planted before the gathering,	317	538
Quantity of Indigo crop in lbs.	2,032,097	1,663,427
„ average of lbs per <i>bahu</i> ,	49 $\frac{3}{4}$	43

The extent of fields destined for the crop of 1842 is 37,970 *bahus*, and the amount of the crop is calculated by approximation at 1,862,000.

In order to the success of this culture in Java it is necessary to chose the best ground. Experience proves that the indigo plants, transplanted from elevated grounds to the rice fields, thrive better and give more colouring matter than those furnish which are directly obtained from the seed.

The grounds in the residencies of Cheribon, Baglen, and Madion furnish the best results. The new regulations regarding this culture will contribute to its developement and to the improvement of the produce.

The culture of indigo was introduced into Java in the time of the Company; it was so much neglected during the administration of Governor Daendels that the exportation ceased. This culture has revived since that time, so that in 1823, the exportation was close

upon 17 thousand lbs; in the year 1826 it had risen to 46 thousand lbs. The above table proves that in 1840 more than two millions of lbs of indigo were produced in Java; an evident proof of the remarkable progress which has taken place in this branch of industry.

CULTURE OF CINNAMON.

	1840.	1841.
Residencies in which cinnamon is cultivated	10	10
Number of establishments,	48	49
.. of families devoted to this culture,	7,901	9,688
.. of paid <i>budjans</i> ,	294	345
Extent of ground occupied by the cultivation in <i>bahus</i> of 71 decametres. . .	1,690	1,880
Cinnamon trees of which the bark can be taken,	1,106,566	1,407,213
Young trees in the parks, . . .	2,478,427	2,565,774
For renewing,	307,000	86,800
Total, . . .	3,891,998	4,059,787
Cinnamon crop, in lbs,	57,074	38,219
.. refuse,	23,283	82,803

The number of trees which it is proposed to peel in 1842 is taken at 1,824,599, and the crop is reckoned at 108,905 lbs.

In the residency of Bantam, 4 trees suffice to produce a lb of cinnamon, whilst in the other residencies 11 trees must generally be stripped to furnish the same quantity; in 1839, one lb could scarcely be obtained from 13 trees.

This cultivation increases each year, and the quality of the produce improves, whilst the expences diminish. However, the Government has judged it proper not to extend it, although the soil of Java appears favorable to this culture.

We shall omit the details regarding the cultures which have not obtained a large extension, or which are confined to experiments more or less favourable, such as cochineal, the clove, pepper, tobacco, tea, silk, cotton &c.; some remarks will suffice to give an idea of them.

The cochineal plant was introduced into Java in 1830; since which time this shrub, inhabited by the insect which furnishes the cochineal, has been cultivated. Experiments on a large scale have only been

made in a few residencies where they have succeeded perfectly. It is confidently expected that the residencies of Japara and Krawang will furnish in 1845, each from 18 to 20 thousand lbs. of cochineal; these residencies, as well as those of Bantam, Cheribon, and Samarang, are designed for this culture which requires much care and hand-work.

It appears that the clove does not thrive on the soil of Java; the plantations of which trial has been made have not succeeded although they were directed by skilled persons brought from Amboyna, and although the places they made choice of did not differ remarkably, as to ground and climate, from those of the Moluccas.

Pepper is cultivated in two residencies; the culture of this creeper is not now so much sought in Java, as it was in the time of the Company; it has been replaced by cultures more profitable, and which require less care; the province of Bantam has always furnished and still continues to produce the most pepper.

The culture of tobacco is a very profitable article for the labourers, seeing that the produce is obtained from grounds which have already given a first crop. The qualities of Java tobacco are more and more prized in the European markets; the preparation and assortment are not yet all that could be desired, but they have progressed in this branch, and the contracts made with the new adventurers assure them of a considerable benefit. But, before the Javanese tobaccos can find an assured opening in the European markets, it is necessary that the cultivators should make use of seeds from the Havannah or Manila. The residencies of Rembang, Sourabaya, Samarang, Cheribon, and Tagal present districts suited for this culture; it has been carried on with success for a good many years in the residencies of Preanger, Pakalongan and Kedu, but only for the consumption of the interior and of the Archipelago.

In 1828 the first experiment in the cultivation of tea was made in the garden of the Chateau of Buitenzorg where 800 plants of an astonishing vigour served as an encouragement to undertake this culture; considerable plantations were made in many parts of the island. The first trials did not answer to the expectation as far as regards the quality of this article, the astringent taste and feeble aroma of which caused the conjecture that the preparation of the leaf and its final manipulation are not exactly according to the process used in China. At present tea is cultivated in thirteen residencies; but the principal establishment where the final manipulation is made, and where the assorting and packing takes place, is in the neighbourhood of Batavia.

The teas which Java now furnishes yearly to the markets of the mother country may be stated at from 200 to 300 thousand lbs. Nevertheless we learn that Government intends to abandon this culture to the industry of private persons, under the guarantee of equitable contracts.

Mr. Jacobson inspector of tea culture in Java, has published at Batavia a work in three volumes, upon the mode of cultivating this plant, upon the choice of grounds, and the best processes for the preparation and manipulation of the leaves. This book, the fruit of many years of experience and care given to this object, is welcomed with a lively interest by the cultivators who devote themselves to this branch of industry. If, by means of care, and at the end of many experiments the Government succeed in conferring on the island of Java this important branch of commerce, she may hope to obtain brilliant results, above all at a time when the victories gained by England over the Chinese, may be looked upon as the forerunners of political and mercantile changes which it is impossible to pre-judge, but from which the Island of Java may perhaps be called to draw a large harvest, and which, at all events, open to this country a new source of prosperity and riches.

When Arabia enjoyed the exclusive monopoly of coffee it could not be foreseen, that one day the island of Java would furnish to the consumption of this article, from 125 to 130 millions of lbs per annum. If the culture of tea succeeds in Java, according to the expectation which may be formed, the tax in cash which our trade brings yearly to China will then flow for the greatest part towards the possessions of the state.

The rearing of silk worms in Java dates from the beginning of the 18th century. After having furnished satisfactory results this branch of industry has latterly been neglected; it has been tried to revive it from its depression, but the experiment has not answered to the hope conceived. Some trials having failed, the Government seems to intend to abandon this undertaking, which offers better chance of success in the hands of private persons.

Two kinds of cotton grow in Java. That which is produced by the lofty tree *Bombax pentandrum*, called in Malay Kapok is coarse and cannot be employed in manufacturing cloth. The cotton shrub *Gossypium herbaceum* or the Kapas of the Malay is a light and fine down which is used in the arts, and which has been long cultivated by Europeans in Java. This last culture has experienced improvement, and the export of it is very considerable.

We pass over in silence the cultures which were known to the Javanese before the arrival of the Europeans, or which they managed without the intervention of them. It remains for me to mention the cutting of the reserved forests, and the rural economy.

In order to put a stop to the devastation formerly committed in the extensive forests which still cover a part of the island, the Government has adopted measures for the proper and regular management of these forests, which at present amount to the number of 789 and occupy a very considerable surface in 13 of the 22 residencies of Java and Madura. These forests are for the most part composed of Djatie or teak wood (*Tectona grandis*) a hard wood possessing the qualities of the European oak, and which is employed in the construction of buildings and in ship building. The yearly export is considerable.

For some time the Government has made trial of two agricultural establishments under the form of penitentiary institutions. These model farms are established in the least populous districts of Kra-wang and Bezokie; the first of these establishments contained in 1841, 43 condemned persons, and the second 54. The end which is proposed by this trial is to encourage to work vagrants and vagabonds, and to furnish to the country an industrious population after the expiry of their period of detention; in this last point of view the result has not answered the aim, seeing that the greater number of the liberated persons go elsewhere immediately on the expiration of their term of punishment. The condemned cultivate in these establishments rice, coffee, cochineal and indigo.

The breeding of cattle receives every year a considerable development, above all since the slaughter of buffaloes has been prohibited, this animal being of a recognized utility for field labour; the number of cattle and horses in 1840 was as follows:

Buffaloes,	1,215,825
Oxen Bullocks, ..	378,455
Horses,	255,197

The census of 1842 states them to be as follows:

Buffaloes,	1,324,623
Bullocks,	431,357
Horses,	291,578

This augmentation is owing not only to the cattle born in the country, but also to the considerable importation which is made from other islands of the Archipelago.

In 1840 it was proposed to Government to introduce the ass and camel into Java, as beasts of burden. In consequence of this a trial has just been made to naturalize the Camel in this Island. These useful animals were brought from Teneriffe. They have been kept in the residency of Samarang, and their number in 1841 amounted to 8 males, 29 females and 11 young, of which 7 were males and 4 females.

The Camel does not seem to be adapted to the climate of Java, and there is a doubt if it can render much service to agriculture particularly as a means of transport. On level ground the male can only carry 4 piculs and the female 3, Java being covered with mountains for three fourths of its surface, they will not be able to bear such a weight, all these Camels have successively perished.

The model stud established at Tjanjor under the Government of the Baron van der Capellan has not furnished encouraging results; the number of 230 horses which were there in 1840 has sustained a loss of 35; it is brought according the census of 1841 to 16 stallions 104 mares, and 75 colts.

This stud, established with the intention of improving the breed of native horses, still leaves much to be wished for in its organization and the choice of horses. It is asserted that the country and the soil where it is established are not suitable; it is also said that the administration is defective and that it wants funds. An establishment of this kind deserves to fix the attention of Government, which certainly will busy itself with it for the benefit of the army and agriculture.

The two tables of the export of produce of the whole Archipelago in 1826 and 1836, serve to shew the remarkable increase which has taken place since the introduction of the system of cultures.

EXPORTS IN 1826.

			Dutch florins,
Coffee,	340,049 piculs of 125 lbs, . .		6,719,945
Mace,	556 " 		83,437
Cloves,	541 " 		67,738
Nutmegs,	2,237 " 		261,530
Pepper,	4,480 " 		81,324
Javanese cloths,			213,045
Raw Cotton,			39,225
Benjamin,	939 " 		22,864
Cocoanut soap,	23 " 		2,737
Rice,	5,895 coyns of 3,375 lbs,		636,160

POSSESSIONS IN THE INDIAN ARCHIPELAGO. 207

Tin,	13,800 piculs	.. ..	667,510
Birds nests, .. ..		.. ..	442,362
Java tobacco,	154,100 lbs	.. ..	621,364
Sugar,	19,795 piculs	.. ..	312,724
Arrack, .. .. .		.. ..	64,298
Sandal and Sapanwood,		.. ..	54,862
Ebony wood, .. ..		.. ..	25,611
Buffalo hides	75,344 in No.	.. ..	95,681
Tripang,	1,828 piculs	.. ..	66,948
Indigo,	76 „	.. ..	44,972
Oil, .. .. .		.. ..	59,274

EXPORTS IN 1836.

Coffee,	489,078 piculs	.. ..	15,090,362
Sugar,	509,514 „	.. ..	9,083,141
Rice,	36,438 coyans	.. ..	3,389,615
Tin,	47,739 piculs	.. ..	2,718,810
Mace,	991 „	.. ..	396,268
Cloves,	2,185 „	.. ..	153,036
Nutmegs,	5,022 „	.. ..	1,711,600
Indigo,	407,798 lbs	.. ..	1,122,382
Buffalo hides,	109,098 in No.	.. ..	217,715
Arrack, .. .. .		.. ..	115,959
Different articles, ..		.. ..	84,096
Ginger,	942 piculs	.. ..	19,461
Gold, dust and wrought,		.. ..	312,775
Sandal wood,	3,321 piculs	.. ..	118,991
Sapan wood, .. ..		.. ..	56,154
Tobacco,	19,822 piculs	.. ..	769,850
Ebony, .. .. .		.. ..	35,588
Raw Cotton,	237 piculs	.. ..	28,836
Curcuma, .. .. .		.. ..	32,830
Cinnamon, .. .. .		.. ..	23,788
Copper utensils, .. ..		.. ..	142,035
Different cloths, .. ..		.. ..	642,406
Copper articles, .. ..		.. ..	29,934
Spices &c., .. .. .		.. ..	42,585
Cocoanut oil, .. ..		.. ..	95,515
Mother o'Pearl,	1,304 piculs	.. ..	38,665
Round Pepper,	7,006 „	.. ..	125,035
Long Pepper,	1,061 „	.. ..	31,475

Rattans,	49,968	„	229,709
Tortoise shell,..	43	„	90,954
Tripang,	2,959	„	185,783
Drugs for dyeing, ..		„	22,646
Bird nests,		„	445,602
Salt,	2,641 coyans and 17½ piculs		158,495

The table which follows serves to shew the export of the principal productions which took place in 1841 and 1843 from the harbours of Java and Madura.

	In 1841.	In 1843.
Rice,	676,212 pls	1,108,774 pls
Coffee,	961,466 „	1,018,102 „
Sugar,	1,031,094 „	929,769 „
Nutmegs,	5,125 „	2,133 „
Mace,	1,171 „	486 „
Cloves,	7,610 „	2,027 „
Tin,	48,339 „	45,705 „
Indigo,	1,827,386 lbs	1,890,429 lbs
Cinnamon,	362 pls	1,441 pls
Cochineal,	20,978 lbs	63,111 lbs
Raw Silk,	5 pls	0 pls
Pepper.	13,245 „	23,083 „
Java Tea,	1,408 „	365,975 „
Tobacco,	474,150 lbs	710,850 lbs
Indian Rubber,	117 pls	155 pls

The tables of the import and export of the trade and the navigation give the following results for the years 1835 and 1842. They serve to shew the progressive increase which took place in some years in these two branches of the national well being. The general movement of the imports and exports may serve to demonstrate their importance.

IMPORTS INTO JAVA AND MADURA in 1835.

The value of the imports excluding those made on account of the Government, has been.

In Merchandize, ..	f 15,554,416
In Specie ..	2,311,389
Total	17,865,805

They were from the following places, viz :

From Europe and America, value	..	ƒ 8,291,956
„ Western India and Bengal	..	1,017,218
„ China, Manila and Siam	..	1,139,126
„ Empire of Japan	.. ..	1,221,368
„ Indian Archipelago	.. ..	3,884,748

Sum total in merchandize ƒ 15,554,416

The imports took place from the following Countries.

	Merchandize.	Specie.	Total.
From Netherlands, ..	ƒ 4,059,661	..	4,059,661
„ England, ..	3,255,603	5,865	3,261,468
„ France, ..	396,754	160,650	556,404
„ Hamburgh, ..	74,181	19,879	94,060
„ Sweden, ..	18,566	..	18,566
„ America, ..	242,074	1,613,964	1,856,038
„ Cape of Good Hope, ..	11,501	..	11,501
„ Mauritius, ..	1,196	2,550	3,746
„ British India, ..	170,935	..	170,935
„ Siam, ..	71,820	..	71,820
„ Cochin China, ..	10,467	4,641	15,108
„ China and Macao, ..	383,142	20,400	403,542
„ Manila, ..	77,941	245,833	323,774
„ Japan, ..	1,221,368	..	1,221,368
„ New Holland, ..	2,729	16,830	19,559
„ Indian Archipelago, ..	5,556,478	220,777	5,777,255
Total, ..	15,454,416	2,311,389	17,865,805

These imports took place by 2,082 vessels of an aggregate burden of 96,752 tons, and sailing under the following flags.

	Vessels.	Tons.
From the ports of Europe under Dutch colours, ..	135	30,570½
„ „ Indian Archipelago, ..	1,738	37,533
Total under Dutch flag, ..	1,873	68,103½
Under British flag, ..	66	12,231½
„ French „ ..	16	2,502
„ Swedish „ ..	1	190
„ Hamburgh „ ..	3	424½
„ Portuguese „ ..	8	1,327
„ American „ ..	60	10,589

210 TEMMINCK'S GENERAL VIEW OF THE DUTCH

From Oldenburg	„	..	..	I	62½
„ Siamese	„	..	..	11	628
„ Chinese	„	..	..	4	190
„ Different Asiatic flags,	..	..	..	39	504

Total, Vessels 2,082 tons 96,752

The imports under certificates of Netherlands origin form a total amount of *f* 2,020,080.

To the imports by private persons of *f* 17,865,805
add those on account of the Government, 2,987,025

Total Imports, *f* 20,852,830

EXPORTS FROM JAVA AND MADURA IN 1835.

The value of the exports excluding those made on account of the Government amounted,

In Merchandise to *f* 32,158,030
„ Specie, .. 336,437

Total, *f* 32,494,467

This export took place to the following countries viz.

		Merchandise.	Specie.	Total.
Holland,	..	22,331,639	6,530	22,388,169
England,	..	352,498	..	352,498
France,	..	573,243	..	573,243
Sweden,	..	90,052	..	90,052
Hamburg,	..	48,583	..	48,583
America,	..	659,724	5,865	665,539
Cape of Good Hope,	..	8,418	..	8,418
Bremen,	..	172,912	..	172,912
Bengal, Coromandel, and Malabar,	..	37,486	2,299	39,785
Siam,	..	11,610	21	11,631
Mauritius,	..	13,088	..	13,088
China and Macao,	..	2,531,043	19,760	2,550,803
Cochin China,	..	3,392	..	3,392
Manila,	..	17,432	..	17,432
Japan,	..	214,582	..	214,582
New Holland,	..	52,621	..	52,621
The Indian Archipelago,	..	5,039,707	301,962	6,344,669
Total,		32,158,030	336,437	32,494,467

The above mentioned export consisted of produce :

Of Java and Madura, value, ..	f 30,571,259
Western parts of India and Bengal, ..	159,282
Siam, Cochin China and Manila, ..	182,599
Japan, ..	44,436
Europe and America, ..	1,200,431
<hr/>	
Total, f 32,158,030	

These exports took place by 2,700 vessels, of an aggregate burden of 126,061 tons, and sailing under the following flags viz :

	Vessels.	Tons.
Under Dutch flag bound for the ports of this country, or to foreign ports,	166	41,753½
Under Dutch flag bound to the ports of the Indian Archipelago	2,283	48,660½
<hr/>		
Total under Dutch flag	2,449	90,414
Under British flag,	77	13,389
„ French „	13	2,062½
„ Swedish „	4	556
„ Hamburg, „	2	438
„ Portuguese, „	11	2,297
„ American „	87	15,624½
„ Oldenburg „	1	80
„ Siamese „	10	488
„ Chinese „	4	200
„ Different Asiatic flags,	42	512
<hr/>		
Total, 2,700		126,061

To the exports by private persons of ..	f 32,494,467
add those on account of the Government in its possessions,	1,620,494
<hr/>	
Total Exports, f 34,114,961	

In the amount of the exports those of the three bonded warehouses are not included, amounting to f 906,933.

IMPORTS INTO JAVA AND MADURA IN 1843.

The whole private Imports of Java and Madura, amounted to

Merchandize, .. *f* 21,980,792

Gold and Silver Specie, 570,596

Total, *f* 22,551,388

The Imports consisted in Products:

Of Europe and America, valued at .. *f* 12,103,240

Of the West of India and Bengal, .. 1,345,541

Of China, Manila and Siam, .. 2,374,068

Of the Japanese Empire, .. 154,854

Of the Eastern Archipelago, .. 6,003,089

Sum total in Merchandize, *f* 21,980,792

The Imports took place from the following Countries; viz.

	Merchandize.	Specie.	Total.
From Netherlands, ..	<i>f</i> 6,947,507	38,360	6,985,867
England, ..	3,694,426	..	3,649,426
France, ..	453,031	40,280	493,311
Belgium ..	7,208	..	7,208
Sweden ..	147,703	..	147,703
Denmark ..	25,627	13,478	39,105
Hamburg ..	123,852	17,455	141,307
Bremen ..	165	..	165
America ..	337,628	29,907	367,535
Cape of Good Hope ..	16,771	..	16,771
Persia ..	727,200	17,722	744,922
Cochin China ..	30,845	1,247	32,092
Bengal, the Coast of Coro-			
mandel and Malabar	222,094	..	222,094
Mauritius or Isle of France	27,179	54,500	81,679
China and Macao ..	895,978	8,160	904,138
Siam ..	243,542	..	243,542
Manila ..	187,270	..	187,270
Japan ..	154,774	..	154,774
New Holland ..	31,633	1,480	33,113
Eastern Archipelago ..	7,751,359	348,007	8,099,366

Total *f* 21,980,792 570,596 22,551,388

These Imports have taken place

Under	Netherland	Flag	..	..	f	15,886,067
„	English	do	..	..		3,989,930
„	French	do	..	..		511,477
„	Belgian	do	..	..		14,933
„	Swedish	do	..	..		222,663
„	Danish	do	..	..		103,648
„	Russian	do	..	..		15,941
„	Hamburg	do	..	..		89,403
„	Bremen	do	..	..		25,815
„	Portuguese	do	..	..		543,587
„	Spanish	do	..	..		10,695
„	American	do	..	..		364,164
„	Siam	do	..	..		303,990
„	Chinese	do	..	..		206,338
„	Chn.Chinese	do	..	..		32,092
„	Sundry Asiatic	do	..	..		230,645

Total f 22,551,388

The whole Imports from Netherland which brought Certificate of Netherlands origin amounted to f 5,009,296.

There was imported on account of Government in Specie, Goods and Produce to the value of f 9,819,599 not comprehending those of the Japanese empire which have been brought under the private imports

To the Government Goods	amounting to	f	9,819,599
Add the Private	ditto ditto		22,551,388

Total imports f 32,370,987

except that which is deposited in entrepot and therefore cannot be considered as imported.

EXPORTS OF JAVA AND MADURA IN 1843.

The whole private Export has amounted to

In Merchandize,	f	58,159,237
Specie,		833,599

Total f 58,992,836

The same took place to the following Countries :—

		Merchandise.	Specie.	Total.
To Netherlands	..	<i>f</i> 38,659,626	73,589	38,733,215
England,	..	1,462,792	934	1,463,726
France,..	..	1,317,839	2,000	1,319,839
Belgium	..	351,101	..	351,101
Denmark	..	147,080	..	147,080
Sweden..	..	530,303	..	530,303
Bremen	..	214,909	255	215,164
Hamburg,	..	921,980	1,250	923,230
America	..	843,611	500	844,111
Cape of Good Hope..	..	229,561	500	230,061
Mauritius or Isle of France	..	33,223	..	33,223
Persian Gulf	..	56,521	..	56,521
Bengal, Coromandel, & Malabar	..	9,594	15,650	25,244
China and Macao	..	2,019,894	128,556	2,148,450
Cochin China	..	43,159	..	43,159
Siam ..	..	100,505	..	100,505
Manila..	..	91,918	15,300	107,218
Japan ..	..	174,319	7,252	181,571
New Holland	..	233,816	..	233,816
Eastern Archipelago	..	10,717,486	587,813	11,305,999
Total		<i>f</i> 58,159,237	833,599	58,992,836

The Exports consisted in produce :—

Of Java and Madura, ..	..	<i>f</i> 55,454,350
Of the West of India and Bengal, ..	..	97,675
Of Siam, Cochin China, Manila and Macao,	..	248,276
Of Japanese Empire, ..	..	256,821
Of Europe and America, ..	..	2,102,115

Total as above *f* 58,159,237

The Export through the Entrepots, not included in the above table amounted to

Out of Bond at Batavia	..	<i>f</i> 1,739,904
do at Samarang	..	45,454
do at Sourabaya	..	302,558

Total, *f* 2,087,916

The Exports took place				
Under Netherlands Flag,	..	..	f	47,422,822
English do	..	..		4,699,969
French do	..	..		1,463,083
Belgian do	..	..		223,248
Swedish do	..	..		645,280
Danish do	..	..		398,242
Bremen do	..	..		87,505
Russian do	..	..		148,812
Hamburg do	..	..		472,962
Portuguese do	..	..		615,332
Spanish do	..	..		45,534
American do	..	..		1,462,548
Chinese do	..	..		633,719
Siamese do	..	..		305,841
Cochin Chinese do	..	..		43,335
Sundry Asiatic do	..	..		324,604

Total f 58,992,836

The Government Goods and Specie Exported from

Java amounted to	..	..	f	1,356,036
The Private Exports	..	..		58,992,836

Value of whole Exports f 60,348,872

The Government Goods sent to Japan are not comprehended in the above mentioned f 1,356,036; the same being, as above stated, included in the private exports.

It is here to be noticed that the Government stores required for the Out-ports of Netherlands India are mostly supplied by contract, and the goods sent there are included in the private export.

SHIPPING

ARRIVED.

	Ships	Lasts
Under Netherlands Flag, from all Places, except the Eastern Archipelago, of which		
161 from Netherlands,	202	Measg. 55,585
From the Eastern Archipelago, including		
Native Craft,.. ..	1,165	40,371½

		Ships		Lasts	
		Total	..	1,367	Measg. 95,956 $\frac{1}{2}$
Under English	Flag	..	66	..	12,702 $\frac{1}{2}$
„ French	do	..	13	..	2,080
„ Danish	do	..	6	..	759 $\frac{1}{2}$
„ Swedish	do	..	11	..	1,743
„ Bremen	do	..	1	..	205
„ Hamburg	do	..	8	..	1,091
„ Belgium	do	..	1	..	250
„ Russian	do	..	2	..	442 $\frac{1}{2}$
„ Spanish	do	..	1	..	106 $\frac{1}{2}$
„ Portuguese	do	..	7	..	924
„ American	do	..	13	..	2,016 $\frac{1}{4}$
„ Chinese	do	..	8	..	411
„ Siamese	do	..	20	..	649
„ Cochin-Chinese	do	..	1	..	150
„ Sundry Asiatic	do	..	72	..	1,055 $\frac{1}{2}$
Total,		1,597	..	120,542 $\frac{1}{2}$	

SAILED FROM JAVA AND MADURA.

Under Dutch flag to Netherlands & Foreign		Ports of which 186 Ships to Netherlands,		206 measg. 60,618 $\frac{1}{2}$	
Do. Dutch (Netherlands India and similarly privileged vessels included) to native ports (those of friendly princes in the Archipelago included)		..	..	1,288	.. 45,394 $\frac{1}{4}$
Total		1,494	..	106,012 $\frac{3}{4}$	
Under English	Flag	..	89	..	13,423 $\frac{1}{4}$
„ French	do	..	16	..	2,402
„ Swedish	do	..	13	..	2,185
„ Danish	do	..	6	..	759 $\frac{1}{2}$
„ Russian	do	..	1	..	206
„ Belgian	do	..	2	..	443 $\frac{1}{2}$
„ Bremen	do	..	2	..	292
„ Hamburg	do	..	7	..	901
„ Spanish	do	..	1	..	106 $\frac{1}{2}$
„ Portuguese	do	..	6	..	783
„ American	do	..	14	..	2,153

Under Chinese	do	..	4 measg.	357 $\frac{1}{2}$
„ Cochin Chinese	do	..	1 „	150
„ Siamese	do	..	14 „	442
„ Sundry Asiatic	do	..	80 „	1,056
				<hr/>
Total				1,750 „ 131,673

In order to render complete this review we finish it with the communication made by H. E. the Colonial minister to the 2nd. chamber of the States-General, concerning the financial affairs of the possessions of the State for the year 1844, to which we subjoin the abstract of the state of the Import and Export trade for the year 1843 and 1844.

It is shewn by these documents that the total receipts for Netherlands India are valued at the sum of *f* 81,784,671; in this amount the farms appear for a sum of *f* 14,771,018; the land contributions and the territorial revenues *f* 11,135,313; the different contributions and receipts *f* 6,799,428; the trade and the cultures *f* 44,525,522. In this last amount are included the returns for the auctions in Holland, which are valued in dependance, according to the average of the last prices of the auctions, at *f* 32,924,770; different extraordinary receipts *f* 574,564, and the revenues of Sumatra *f* 2,640,491.

There has been actually received in India .. *f* 49,194,603

The difference in loss between the receipts and the expenses in specie, which ought to be covered by the auction of the merchandize amounts to .. 15,776,829

The amount of the produce consigned to Holland remains at 16,813,239

Total receipts 81,784,671

The expenses are estimated as follows:

a. Colonial administration *f* 75,494,285
b. Payments on account of third parties .. 1,701,264
c. Difference under date 31st Dec. 1843, in the administrative capital fixed at *f* 12,500,000 of which two fifths in silver and three fifths in copper 4,589,122

Total expenses *f* 81,784,671

The real expenses in India are as follows :

Administration	..	..	f	59,806,536
Payments on account of third parties.	..	..		575,774
Difference of the Administrative capital in 1843	..			4,589,122

Total of real expenses.	..	f	64,971,432
The real receipts in India amount to			49,194,603

The deficit in money of the administration in India, which ought to be covered by the produce of the merchandise, amounts to	15,776,629
--	----	----	----	------------

Total receipts in Europe	..	f	32,980,427
The expenses are estimated at	..		16,813,236

So that there remains.	..		16,167,188
Deduct the amount of the deficit in India amount- ing in silver to	..	f	7,032,639
In copper f 8,774,090 which makes in silver.	..		7,286,825
		f	14,319,464

Consequently the supposed profit of India for the year 1844 is	f	1,847,724
---	----	----	---	-----------

However, according to later corrections, the supposed profit amounts to f 2,123,429.

Although the official reports on the trade of Java and Madura for the year 1844 are not yet published, we give below some details which have been communicated by the *Staats-Courant*, and also subjoin a comparative statement of the importations by private persons during the years 1843 and 1844.

The general imports in Merchandise and Specie which have been made in 1844

amount to	..	f	36,479,663
Those in 1843 amounted to			32,370,987

Those of 1844 exceed those of 1843 by	..	f	4,108,676
---------------------------------------	----	---	-----------

There has been imported on pri-

vate account in 1844	..	f	25,342,343
and in 1843	..		22,551,388

Being an increase of f 2,799,953

In 1844 there was imported by

the Government .. f 11,137,320

In 1843 .. 9,818,599

Being an increase of f 1,317,721

Total, f 4,108,676

EXPORTS.

The general exports in Merchandize and Specie

during 1844, amounted to .. f 27,617,506

Those of 1843 were only .. 26,714,413

Thus additional in 1844 f 903,098

COMPARATIVE STATE OF THE PRIVATE EXPORTS DURING THE YEARS 1843 and 1844.

		1843.	1844.	1843. Value.	1844. Value
Arrack,..	Barrels	6,562	6,271	328,129	250,986
Cochineal,	..	17,812	31,773	61,629	95,319
Hides,	..	152,310	..	304,573	314,202
Indigo,	lbs.	136,135	199,931	403,405	599,793
Coffee,	pls.	160,659	214,025	3,393,180	4,703,500
Pepper,	..	17,356	9,711	312,403	135,356
Rattans,	pls.	73,535	73,152	514,745	585,220
Rice,	..	1,103,774	683,088	6,038,257	4,781,616
Sugar,	..	314,925	281,053	4,094,025	3,934,742
Tobacco,	corge.	4,739	5,525	1,824,514	2,099,517
Tin,	pls.	27,580	5,938	1,379,000	299,400
Cloth and thread	..	..	..	2,136,733	836,936
Spices,	..	..	..	102,481	105,330
Fripang,	..	..	..	67,472	279,590
Birds Nests,	..	..	..	1,272,568	1,830,571
Different articles,	..	..	..	3,582,675	5,671,563
Bullion in Gold and Silver,	..	..	..	833,599	1,068,293
Total,				26,714,413	27,617,506

In which manner the exports of 1844 exceed those of 1843 by *f* 903,093. There is an increase on the exports of coffee, indigo, tobacco, tripang, different articles and bullion, while there is a decrease on the arrack, cloth and thread, pepper, sugar and tin.

The exports, produce, merchandize and specie made on account of the Government which are not included in the above comparative statement amounted to

	1843.	1844.	Increase.
In Produce,	<i>f</i> 32,278,423	42,468,435	<i>f</i> 10,189,617
Merchandize and Bullion, ..	1,356,036	1,878,067	522,031
Adding the surplus on the private exports,			903,093

It follows that the exports of 1844 exceeded those of 1843 by *f* 11,614,836

In 1843 the exports amounted to *f* 60,347,872 while the imports only amounted to *f* 32,370,987, which constitute a surplus of exports of about 28 millions of Guilders.

The same took place in the year 1844 when the exports amounted to *f* 71,963,708 and the imports to *f* 36,479,663, the exports thus exceeding the imports by 35½ millions of Guilders.

The private exports during the year 1843 amounted to *f* 26,714,413 and the imports to *f* 22,821,861, thus the exports exceeded the imports by *f* 3,892,552; in 1844 this proportion diminished because the exports amounted to *f* 27,617,506 and the imports *f* 23,342,343 so that the imports were only *f* 2,275,163 smaller than the exports.

We see from these tables that the agricultural industry, the trade and the navigation have taken a development unknown before the introduction of the new system of cultures in 1830. Since this memorable period the single island of Java produces more articles fit for exportation than all the other possessions put together. It is impossible to form an idea of the increase which these cultures may successively offer through the new clearings which take place, for the extent of uncultivated grounds is still very considerable in this island. The climate there unites all the advantages which the tropic and the temperate zones afford, and the soil of an inexhaustible fertility offers all the guarantees for an increasing prosperity. Agriculture will never want arms in this country, seeing that the privileged classes reckon it a merit to cultivate the soil, that the *adat* grants to the cultivator a distinguished rank in Society, and that the princes and the

nobility to render themselves popular often lend a hand to the labours of the fields.

In the meantime the Metropolis enjoys the fruits of this agricultural industry. It is really the most fertile source of trade, it furnishes considerable development to the navigation and strongly influences the well being of all the working classes. The coasting trade in the Archipelago, this important branch of public prosperity in the possessions of the State, and which the Government ought to encourage by all the means at her disposal, has received a no less remarkable expansion since 1830 ; witness the increasing export which takes place in the different parts of her dominions. The Javanese nation finds also there a guarantee for the maintenance of its well being, and it advances insensibly towards a degree of civilization which it could never have reached under the influence of its old rulers. The Javanese, formerly so careless, commences to awaken from his apathy; millions of hands devote themselves to agriculture, the native being persuaded that this is the source of the prosperity which he enjoys under a mild, just and protecting Government. The Javanese vanquished and disarmed but freed from despotism have submitted themselves to the Netherlands, more in consequence of good treatment, of equity and of justice, than from the terror which its power inspires; they have ceased to be objects of fear, and they now peaceably labour their fields.

Holland already enjoys in her finances the fruits of the wise measures adopted by the government which rules her old and more recent possessions. From the Metropolis of the Archipelago, organized on a respectable footing, she extends her power successively to the other islands covered by her flag. The great and beautiful Sumatra feels already (as we shall see in the sequel of this work) the salutary effects of the system followed in Java. Celebes furnishes abundant products, and the civilization of the native population modifies itself in proportion as our power extends over them.

By persevering thus in the ways of wisdom, equity and philanthropy the Government will see its trade progressively increase, its navigation extend, and its profits augment; and its dominions in India may one day efficaciously assist the metropolis in Europe in the event of a financial crisis. The results at which we have arrived would permit us for the future to dispense in our colonies with slaves, seeing that in Java more than six millions of cultivators work on account of the Government which has now realized and put in practice the only means of stopping completely the shameful slave trade, which the

most powerful maritime nations have not yet succeeded in putting an end to.

The island of Java and all the other parts of this large Archipelago have enjoyed, since 1830, a peace and tranquillity which no sinister sign appears to threaten. A handful of Europeans dispersed in the principal establishments as civil agents of the government, a European Army far from numerous, forming scarcely the staff, and serving only as a frame work to the phalanxes of the natives, two or three frigates, a more considerable number of steamers of different sizes and some small sailing men of war, are means sufficiently powerful to maintain this order, and to ensure to the authorities the exercise of their functions in the centre of an insular population of more than twenty millions of inhabitants.

However weak these means may appear they are deemed sufficient at a time when the peace of Europe seems insured for a length of time. For the rest the insular position of our establishments in the centre of the great Ocean, protects them against revolutions in mass, and secures them from invasions to which the continental establishments are exposed. The last war against Dhipo Negoro shewed what immense use the government can derive from its native troops conducted by experienced European chiefs. Even in the event of a maritime attack, which could be only made by a power of the first rank, the islands of the Archipelago would not at this day offer so easy a conquest. In effect since the organization established in all the branches of the administration, supported by the means of defence which the interior parts of those islands now present, and also by the resistance which the towns are capable of opposing, by the organization of their civic guards, the enemy, however formidable may be the force at his command in these seas, could not flatter himself with a certain conquest.

Let us not doubt that the Javanese nation will remain subject and faithful to us, as long as the Government shall continue to keep itself within the limits of the power which it has fixed according to the *adat*, or Javanese code. In order to maintain this tranquillity, she ought to abstain from introducing into this country the tormenting fiscal system, and it is necessary above all to preserve intact the system of the rural institutions. The full liberty of culture which these people have adopted ought to be guaranteed to them. We ought to avoid the employment of means contrary to their prejudices: and which have for their purpose a hasty reform of their social and religious institutions; these they will modify themselves slowly and in-

sensibly by the daily contact which they have with our European civilization. More than two centuries of a moderate, protecting, and persuasive power, rarely hostile or absolute, have served to make it appreciated by the Javanese nation, which in no manner regrets the authority of its native despots, under which revolts and murderous wars marked, in traces of blood, the epoch of a succession to the throne; whilst the jealousy and the hatreds of the princes and the nobles of the court, often kindled the torch of discord and impelled the population to acts of unheard of cruelty.

The fate of these large and flourishing possessions depends henceforth, more than is thought, on the choice of the men destined to govern and to exercise offices which bring them in contact with the natives. In order that our social institutions should there find favor and offer useful results, it is our duty as well as our interest, to present to this industrious and agricultural people the manners and the virtues of civilized nations and to veil from their eyes the vices with which this civilization is sullied.

MALAY PANTUNS.

لاڻغ نمڻا کليمهاتن دشن سکتیک ابڻ دافتنک	ڊرلورڻ ۲ دڻدڻ رات جکلو ابڻ مڻجادي بورڻ
چيمهندن چنڊڻ کفای ادیق تاندق افکنديا	ڦوتس تالي جلا جنتوڻ ڦوتس هاتي هندق برگنتوڻ
تمشت منجموربوه ڦال سبايق رمبوه دياتس کڦال	ڦوهن تري دياتس بوکت هارڦ هاتي ابڻ بوکن سديکته
بياس برلاير کنڦري جاوا جنڦجي ساتو مڻجادي دوا	انڦي عالي انق سبراڻ کچوالي اورڻ سکارڻ
کوات برلاير کتانه سمارڻ مولوتن مانس لیده برچاڻ	انڦي عالي انق کتافڻ کچوالي اورڻ سکارڻ
تالي ترسڻکوه دکهوڊي هاتي ترسڻکوه کارن بودي	ايم هوتن تربڻ کهوٽن ادیق بوکن ابڻ ڦون بوکن
يڻ سبالهن دبواڻمن تيدق سام ادندا تولن	بله بوله بردوري ۲ سڦوله اورڻ دافتن دچاري
تمهڦه مغايل سيڦاراعڦاراڻ باڳي بوغا بارو دکاراڻ	ڦولو اوڦيه لارت ملاک انڦي ڦوته چرامين مات
ترسندارد ڦوهن ازر دوری بارڻ اف ادیق هندق ابڻ بري	تابڻ کايورابه دان تهبيڻ جاشنله مالو ادیق برجهڻا ابڻ
يڻ سيڦيچي دياتس ڦتي برهوٽخ بودي دباوا هاتي	ڦيسڻ امس دياتس لايو برهوٽخ امس دافتن دبايو

THE
JOURNAL
OF
THE INDIAN ARCHIPELAGO
AND
EASTERN ASIA.

A FEW REMARKS ON CONCHOLOGY AND MALACHOLOGY

*Comprising brief Notices of some of the more remarkable
"Testacea" in Singapore and its neighbourhood; with an
appended Catalogue of Singapore Shells arranged in con-
formity with "Lamarck's System."*

By WILLIAM TRAILL, M. D.

IN publishing facts respecting the habits and peculiarities of the Mollusca, it is difficult to avoid going over old ground, as there has been, of late years, much additional information contributed by voyagers and travellers; among whom none excel the French Naturalists in the patience and minuteness of their anatomical investigations. The following remarks therefore, are not brought forward as new, though they may have their use, as affording additional testimony to facts or theories already advanced by others.

I am far from considering the annexed catalogue, a complete list of the shells of Singapore; they are only such as have hitherto fallen under my personal observation. My conchological researches have been, for the most part, solitary, and it is natural to suppose that the combined efforts of several individuals in a pursuit of this nature would have produced more accurate and satisfactory results. It is

right, however, to mention that I received valuable aid from Lieut. Col. Watson of Madras, during his short residence in the Straits, particularly in discovering the localities of the land shells, many of which I had previously overlooked.

It was formerly customary for writers on conchology to endeavour to defend the science from the charge of frivolity, and such indeed might seem to be necessary when the pursuit, as the term implied, consisted merely in collecting and arranging the shelly coverings of testaceous animals, without any reference to their living inhabitants, whose interesting habits, and minute anatomical structure, have in these latter days claimed the attention of Naturalists. But from the time that these collateral studies were comprised, conchology was entitled to be called a science, replete with proofs of Almighty intelligence, and well fitted to raise the mind of the creature to the Creator by the contemplation of the wonderful skill and beauty of His works.

It is generally admitted that conchology has thrown much light on the more recent discoveries of the Geologist. By the help of organic remains and principally fossil shells, he can read as in an ancient book, the early history of the world. In the words of Dr. Buckland: "The study of Organic Remains indeed forms the peculiar feature and basis of modern Geology, and is the main cause of the progress this science has made, since the commencement of the present century."

Ancient philosophers have in all ages, turned their attention to the subject of conchology: the learned Aristotle 300 years before the Christian era formed the three divisions of Univalve, Bivalve and Multivalve shells. The elder Pliny who wrote at an early period of the Christian era, includes this branch of science in his voluminous work on natural history which is still extant. The system of Linnaeus, founded principally upon the exterior form of the shell, was the first generally recognised by naturalists in Great Britain; some of his distinguishing terms are still retained and many of the generic names are unaltered; but the system of Lamarck based, for the most part, on the conformation of the soft parts, or anatomical structure of the animal, was afterwards more universally employed, our Continental neighbours taking the lead in adopting his classification.

Cuvier makes the Mollusca one of his four great divisions of the

animal kingdom, and acknowledges in part the systems of Linnæus, Lamarck, Blainville and other later authors. At the present time, the researches of modern naturalists have added greatly to the number of existing genera and species, and increased our knowledge of their habits, localities, &c., while a few late writers have so altered established Systems, by substituting new families, genera and species, according to their individual experience that it is certainly impossible to give specific names to many specimens, so as to be understood by all readers. I have therefore, to avoid confusion entirely embraced Lamarck's System, merely adding the names of such shells as were not known in his time, or such genera as are acknowledged new, by the common consent of naturalists.

The shells of Singapore are found in three principal localities; in the sea, in fresh water, and on the land; the sea shells, as might be anticipated, are most numerous; the list of fresh water shells is scanty, as there are here no natural sheets of water, no river entirely of fresh water, nor even a running stream deserving the name of a rivulet, so that, with the exception of springs, the only water that has not a brackish taint, is that which accumulates in artificial drains, some of them of considerable extent, and intersecting the country in various directions. A considerable number of shells which are commonly described as inhabiting fresh, are found here in brackish water, and several of them in places that are overflowed by the sea at high tides; indeed the only kind I have hitherto found exclusively in fresh water is a species of *Planorbis* which I shall presently describe.

The land shells of this place are not numerous so far as can be ascertained: I have not met with more than 23 species, though doubtless others might be added, were their localities more easy of access. Several kinds of *Helix* and *Cyclostoma* appear to inhabit the depths of the forest, from whence it is almost impossible to procure them, the jungle being, for the most part, guarded by an interwoven mass of brushwood and prickly shrubs; several species have only been discovered, after the ground has been cleared by burning the trees and thus disclosing the half calcined remains of the shells.

It cannot fail to strike any one who pursues the study of conchology in this neighbourhood, that there is a remarkable paucity of the larger and more gaily coloured shells, which does not seem easily accounted for; the coast is extensive and varied, and is, apparent-

ly well adapted to the habits of life of Molluscous animals; there are numerous sheltered bays and inlets, with large tracts of level sand, and in other places, shelving rocks clothed in part with a variety of *Algæ*. It may, however, be questioned whether the geological formation of the coast is such as favours the growth of shells; so far as I can ascertain from the perusal of such recent works as I have met with, naturalists are but imperfectly acquainted with the primary formation of the calcareous coverings of these animals: it is known that the membrane which is called the *Mantle* of the animal, secretes a fluid more or less tenacious, which gradually hardens into the consistence of shell, and the manner in which it is deposited, layer by layer, has been minutely described by authors, yet it is not known from whence the mineral substance is derived, or what change it undergoes to convert it into the material forming shell. It appears probable however, that soluble salts, or other combinations of lime existing in the water, are absorbed into the body of the animal, and from thence by the proper ducts conveyed to the surface for the formation and nourishment of the shell. Should this be the case it might, *cæteris paribus* be expected that shells of the largest size would be found where calcareous rocks fringe the coast, and vice versa: here indeed an explanation of the difficulty seems at hand, for there are no rocks of a calcareous nature in this neighbourhood: on the other hand, it is difficult to account for the immense extent and rapid growth of the *Corallines* which line our coast for many miles, and in the elegance of their forms, and variety of their species, almost vie with our land forests.

This description of animal vegetation, if it may be so called, appears also to obtain its nourishment by absorption from the sea water; and I consider it not altogether unlikely, that this constant and active process maintained by the *Corallines* may interfere with the growth of shells in their immediate neighbourhood. One evident cause of the scarcity of many species, is, that the poorer Malays and Chinese use most kinds of shell fish as food, and search the shores for them with such diligence, that they have caused a dearth of such as are common in less frequented parts of the coast. Among the group of small islands 30 or 40 miles south of Singapore, where a human habitation is rarely seen, the general character of the shells is similar to those of Singapore, but they are more abundant and of

larger size, particularly the genera *Hippopus*, *Tridacna*, *Spondylus* and *Chama*, which, especially the two latter, are much used as food by the natives.

Through the kindness of the Governor, Lieut. Col. Butterworth, C. B. I had lately an opportunity of visiting these islands, and repeatedly explored the coral reefs at low water, and thereby had the means of observing the habits of some of the Testacea to great advantage; among others, the *Voluta undulata*, the inhabitant of which is spotted with blotches of bright red on a dark ground, and readily catches the eye, at a distance of some yards, as it moves like a huge snail through the coral foliage; the *Voluta melo* also inhabits these seas inferior to the former in the markings of the animal, but more than equal to it in the rich tints of the shell. Of the class Conchifera numerous species covered the rocks or were firmly attached to branches of coral; in particular I may mention a species of *Chama* fantastically branched like coral, and in the brilliancy of its yellow colour more resembling a flower than a shell. In several of the shallow bays, I observed an abundance of a small species of *Meleagrina* or Mother of Pearl Oyster, few of the shells were larger than the palm of the hand, and of a dark slate colour. I am informed by those who are accustomed to trade in Mother of Pearl, that this kind never attains a large size. I was at first inclined to doubt the accuracy of the statement, as I do not find more than two described species, namely the *M. margaritifera*, and *M. albina* which is also to be found here. What leads to the supposition of its being a distinct species is that the large kind has never been picked up here.

It is worthy of remark, that among the shells of these latitudes, in common I believe with those of all tropical climates, it is rare to find a single species that is identical with any found in the north of Europe, and it is observable that the few such shells, that are found native here, are not of the more common kinds. On the contrary they are comparatively rare in both latitudes. The difference in the temperature of the seas does not seem sufficient to account for this disparity, nor does it seem probable that atmospheric vicissitudes would much affect creatures so independent of vital air: whether it may be owing to the want of some particular food, I am unable to determine. Of the species found in both latitudes may be mentioned *Chiton marginatus*, *Emarginula fissu-*

ra, *Fissurella græca*, *Arca tetragona*, *Natica castanea*, and a species closely resembling *Trivia europea*.

It has been already observed that the poorer natives have frequent recourse to shell fish as food, a few kinds however, are esteemed delicacies and are frequently exposed for sale in the market; of these may be enumerated *Arca granosa*, (the shell of which somewhat resembles our common cockle) *Corbicula regia* or *Cyrena* of Lamarck, *Cerithium lineolatum* of Gray, and *Voluta melo*, though the latter is not always procurable. Among the eatable shell fish, the Oyster must not be omitted, though it is for the most part lightly esteemed by the natives, who generally prefer such kinds as have a stronger taste. A variety of Oysters may be found here but all are not eatable, two species in particular are of considerable size, and excellent flavour, though found in very different localities. The one kind is abundant at Pedro Branca, a large rock at the entrance to the China Seas where they are exposed to rapid currents and stormy waves; here they are invariably found strongly adherent to the rock by the surface of the lower valve. The other kind is procured from the mouth of the Moár river between Malacca and Singapore. These being comparatively safe from the effects of storms and currents are never fixed to rocks but lie loose in the mud, in beds of considerable extent. Although Oysters are so numerous in both these places, it is rare to find any other species of shell in their immediate vicinity, a circumstance that has been remarked of Oyster beds in England and other places.

Without at all assenting to Lamarck's theory of "Transmutation of Species" it must be allowed that the discrimination between species and varieties among shells is extremely perplexing, the shades of difference between one species and another often appear less than between two varieties of the same species, the marks of distinction are often so modified by various causes, as difference in locality, change of food. &c, that uniformity of colour, size or even shape, when taken separately, are no safe guides, and unfortunately they are not always found combined. Blumenbach wisely observes that "no general rule can be laid down for determining the distinctness of species, as there is no particular class of characters which can serve as a criterion."

This variable tendency does not prevail in all shells, though

some kinds are very liable to it, particularly the genus *Nassa*, many species of which are common here. In illustration of this property of change, I shall describe a species of *Nassa* found in the mud of salt swamps: it is in colour a dark brown or black, about an inch and a half in length, the outer whorl is smooth, those next the apex of the spire are furrowed longitudinally, and it possesses the usual generic mark of a prominent plait at the upper part of the aperture. Out of many specimens examined I have observed none to deviate from the above description. In the same localities may be found another shell quite similar to the other in form and colour, but not more than half its length, possessing however all the marks of a full grown shell, and as no shells of intermediate size are to be met with, there seems good reason to believe them two distinct species. The following instance is however more remarkable in connexion with the above. I lately found at Malacca a small species of *Nassa* of a pale flesh colour, barred with brown, about a third of an inch in length, and little more than a grain in weight. In the same neighbourhood I met with another specimen, three quarters of an inch in length, and weighing between four and five grains. As in the former case, the two shells were exactly similar in shape and colour, though very different in size and weight, and as both had the marks of having attained their full size, I was ready to believe that I had obtained two new species; a further search however, put me in possession of fifteen additional specimens, similarly marked but all of them intermediate to the two first in size and weight; in fact the whole seventeen formed an almost imperceptible scale of gradation, sufficiently proving that they were so many varieties of one and the same species. I have observed several kinds of *Nassa* particularly abundant in the neighbourhood of the Fish Markets, where they may be seen in numbers feeding on dead fish and other animal food. This artificial mode of subsistence is possibly one cause of their variable form and size as it is well known that domestic animals, and others that are more or less dependent on man for their support, are very apt to produce a progeny differing more or less from the parent stock. A good example of the propogation of an accidental variety, must be familiar to my readers in the instance of a well known domestic

animal of the feline genus, which in Singapore is rarely seen with a perfect tail. In the neighbourhood of the Fish Markets may also be seen multitudes of dead shells of all sizes, some so minute as to be microscopic, and all tenanted by Pagurii or Hermit crabs, as varied in size as the shells they inhabit, and like the Nassa, busily engaged in devouring fragments of dead fish, which is their principal food. I make mention of them here as a parallel instance of the effect of artificial life upon some of the lower animals, for these crabs are not, as might be supposed, one, or at most, two or three, species in different stages of growth. If an examination be made, it will be found that individuals of all sizes are laden with spawn, not excepting such as are so minute that their forms are not be distinguished by the naked eye: it cannot be imagined that each of these is a different species, they are in fact an evident instance of the alteration of a species into an almost infinite number of varieties.

Of the various localities in which the Singapore shells are found, one remains to be mentioned, to describe which intelligibly I must briefly advert to the general form of the island of Singapore. It consists of a cluster of low undulating hills based on an extensive plain, having a uniform level surface, in some places not varying above two or three feet, in an area of several square miles. The whole of this valley ground is but little raised above the level of the sea, as is shewn by the salt water penetrating for miles into the interior of the island, and, at spring tides, even overflowing cultivated fields. Over some parts of this low ground there is a layer of decomposed vegetable matter of variable depth, but for the most part the surface is sand, beneath which, at depths varying from 5 to 50 feet, there is a dark blue plastic clay abounding in shells, and these not of the kinds found in Mangrove swamps, but such as are common in open sandy bays or straits. After a careful examination, I cannot pronounce any to be different from those found in the adjacent seas; the forms of most of them are perfect, and in a few the colour is preserved, but they have for the most part lost their hardness, being readily crushed between the fingers. The kinds most abundant are as follows,—*Placenta placuna*, *Strombus incisus*, *S. labiosus*, several species of *Nassa*, *Columbella*, *Trochus*, *Cerithium*, *Mitra*, *Turritella*, *Dentalium Aspergillum*, *Arca*, *Venus*, *Corbula*, *Tel-*

lina and others. I am informed by Mr. Thomson, the Government Surveyor, that wherever he has had occasion to make excavations in the low ground of Singapore, similar appearances present themselves, that in all the brick pits the clay is of the same description and also contains shells; moreover that in the Kallang valley, corals similar to existing species are to be found at the depth of six feet; add to this the fact that the growth of coral is yearly diminishing the depth of water in the neighbourhood, a good example of which is seen at the entrance to New Harbour where there is a small peaked island, between which and Singapore, the coral has grown so rapidly that it is thought the island will in a very few years form a part of Singapore; taking therefore all these circumstances into consideration I conceive that the existence of shells in such situations may be rationally accounted for on the supposition that most of the valley ground of Singapore was originally sea, and has been altered and adapted to the use of man, chiefly, if not solely through the agency of coral.

Most of the shells in the annexed list may be found described in any work of reference on this subject. I shall therefore merely notice individually a few whose exterior forms, or the peculiar habits of their inhabitants, are not, so far as I am aware, very generally known.

The *Magilus antiquus* has lately been found north of Penang in the neighbourhood of Junk Ceylon, the natives set some value on them, and occasionally wear them as ornaments; the shell is singular and apt to be mistaken for a petrification, being dense in structure, diaphanous, and much like alabaster. It has been often figured and described by naturalists, but the animal inhabiting it is I believe unknown, unless described in some very recent publication: it is supposed to be a Gasteropod, though this is rather doubtful, as the shell is said to be generally found imbedded in coral or madreporé: it is probable that this point might be satisfactorily settled by a careful examination of the above locality. Among other interesting discoveries lately made on that part of the coast, is a layer or stratum of grey limestone, of considerable extent, composed almost entirely of petrified shells. I have been fortunate enough to obtain a specimen for examination which contains three distinct species, apparently fresh water shells; two of them I have never

seen recent here, but the third closely resembles a small *Melania* common here in stagnant ditches, their size, number of whorls, and general shape are the same, and they have both deep longitudinal striæ or furrows; some of the shells were crystalline and amber coloured, though the material uniting them was of a uniform grey colour, both substances however were soluble in Hydrochloric acid.

Of the numerous class of shells inhabiting the interior of madrepores, wood, and stone, there is a species allied to "*Pholas*" which I cannot find described in any English work, though it seems to answer the description of the Genus *Jouannetia* of M. Des Moulins in a work entitled "*Manuel des Mollusques par M. Sander Rang*" the shell is white, rather less than a musket ball, and nearly as globular in form, with a slight caudiform appendage at one end, striated obliquely and having accessory pieces, the consistence of the shell more resembles that of the bivalve of the "*Teredo*" than a *Pholas* and M. Des Moulins considers it to hold a place between these two genera. The specimens I have met with were in the interior of rolled masses of "madrepore" and were evidently old, as none contained the animal alive or dead. The "*Lima*" or the "file shell" of which several species are found in the Straits, much resembles the Genus "*Pecten*" or "Scallop shell" which is well known to possess greater power of locomotion than most Bivalves. This power is possessed even in a greater degree by the *Lima*. When in the water its movements are graceful, the two valves being used as fins by means of which it swims with considerable rapidity guiding itself by its numerous tentacula which are frequently of an orange colour and arranged not unlike the petals of a flower, the shell is less eared than the Scallop, and generally white, the valves do not entirely close.

The *Parmaphora* or Duck's bill Limpet is found here, though by no means a common shell, it is like a *Patella* flattened and elongated, the anterior edge always widely notched, apex slightly recurved, length from one to two inches, colour white; the body of the animal is much more bulky than the shell, and the mantle is so capacious that it covers the whole shell except the apex, which enables it in some degree to elude search, as it appears more like a pulpy or spongy mass than a shell; when touched, the mantle stains the hand a dark purple colour.

There is a species of *Planorbis* or shell allied to *Planorbis* found here in pools of fresh water, being the only species of Singapore shell that is found solely in fresh water; the outer whorl is little more than a quarter of an inch in diameter, aperture of the shell more diagonal than is usual in *Planorbis* so that when the animal moves on a plain surface the convex side of the shell is always uppermost whereas the animal of *Planorbis* is described as carrying its shell erect or with the diameter perpendicular; colour of the shell pale amber, no operculum, animal nearly black, mouth vertically cleft, no perceptible neck, (in the animal of *Planorbis*, the neck is said to be elongated) eyes at the base of two blunt tentacula in which also it differs from *Planorbis* which is commonly described and figured as having two subulate tentacula: the animal possesses in a considerable degree, the power of gliding through the water, apparently in search of food, with its shell entirely submerged and its smooth foot in close apposition with the surface of the water, locomotion being effected, by causing the flat part of the shell to act on the water in the manner of a fin, the head of the animal being at the same time directed forward so as to regulate its movements; the animal does not occupy so much as half the shell, and the remaining space frequently contains air, which the inhabitant has the power of expelling at pleasure.

The Genus "*Natica*" of which there are several elegant species in Singapore, is known from the "*Nerita*" or "hoof shell" by being umbilicated, more rounded in form, and the interior not toothed, the shell has been also described as having no epidermis, to this rule however, there are marked exceptions, two of the species native here, having a strongly adherent epidermis.

In Swainson's *Malachology* there is a species figured as an extraordinary animal, much larger than the shell it is supposed to inhabit, one of the species found here presents the same appearance in a remarkable degree; and the phenomenon is caused in the following manner; the interior of the foot of the animal, is of a loose cellular texture, which it has the power of distending with water so as to be more than three times the bulk of the shell, but on the approach of danger it can instantly reject the water, assume its natural size, and retreat into its shell closing after it the operculum which being of stony hardness, secures it from the attack

of ordinary foes. This mechanism doubtless assists the progress of the animal through sand in which it frequently burrows.

The *Cerithium lineolatum* of "Gray" has been already alluded to, there are two shells of this Genus, neither of which I have seen described though I observed one of them named as above in a collection of the land and fresh water shells of Penang, made by Dr. Cantor, the shell so designated is about an inch and a half in length, thin and fragile, of a brown colour, with obscure transverse bands of a lighter hue, aperture more rounded than is usual in the Genus *Cerithium*, spire always truncated in the full grown shell, head and anterior part of the animal bright red like coral: the other species which I have more particularly observed in Singapore, has rather a larger shell, thinner and more fragile than the other and of a darker colour, the animal is brown or nearly black and like the former, the spire of the full grown shell is always decollated; young specimens of the shell have perfect, sharp pointed spires, and the convoluted extremity of the animal then entirely fills the spiral part of the shell, but as the animal increases in size, its posterior extremity becomes more blunted and gradually retreats towards the anterior part of the shell, and as it successively abandons each turn of the spire, it throws out a viscid secretion which forms a hard shelly partition between its new situation and the disused extremity of the spire, which being deprived of its usual nourishment, soon becomes worn into holes and finally drops off: thus the shell when arrived at maturity has always the appearance of being imperfect. The habits of the animal are mixed and peculiar; sometimes it may be seen in a half torpid state, the operculum firmly closed suspended by a glistening thread, from the branch of a tree; when in motion it leaves behind it, a shining track like that of a snail; at the sides of an elongated proboscis are two tentacula, apparently short, blunt, and with eyes at *their extremities*: now as the Genus *Cerithium* is described as having the eyes at the *base of the tentacula*, this would appear a very remarkable deviation, and I was disposed to consider it as such until I had an opportunity of remarking the movements of the animal in water, where it is as often found as on land. When closely observed in that element, it is seen to expand two slender, pointed, tentacula of so delicate a structure that when out of the water they are lax, flaccid, and doubled under the protuberant eye, so



Suspended from a Tree.



Animal as seen in water



Young shell.

CERITHIUM LINEOLATUM OF GRAY.

Lith. at the Miss Press Singapore.

as to be almost invisible. The shell has been found in running streams but more commonly in the brackish water of canals or ditches.

The very numerous genus of "*Cypræa*" or the "Cowry" shell is too well known to require a formal description, the largest species found here is the "*Cypræa tigris*" which is prettily spotted with black, being shewy, it is frequently made into snuff boxes in England, the animals of several have been described and figured by authors. The mantle is so large as to cover all the shell, on the back of which there is often a longitudinal line which marks where its two folds meet: this membrane continually secretes an abundance of viscid fluid which lubricates the shell, and preserves the beautiful polish which has procured for them the name of porcelain shells. I shall only make particular mention of two kinds, the young or spawn of which I have been fortunate enough to obtain in their earliest stage of existence.

The "*Cypræa olivacea*" is the most abundant of the Singapore Cowries being found on most beaches under flat stones, it is of the size and much the colour of an olive except that the back is generally mottled with brown and the mouth somewhat yellow; the specimen which I found with the young attached, was fixed in the usual manner, to the lower surface of a stone, on raising it there was found adhering to it, a flat circular membrane broader than the shell, transparent, and dotted with minute grey spots like grains of sand, on placing the substance in a glass of sea water, numbers of the grains dropped out of the membranous mass to the bottom of the glass and immediately assumed rapid and lively movements, some revolving in a rotatory manner, others alternately rising and sinking in the water or sporting over its surface. On a closer examination these grains were seen to be in reality shells, some hundreds in number, nearly transparent, having no perceptible columella and apparently consisting of a single coil or whorl, aperture round, breadth of the shell greater than the length, so that, when on a plain surface it rested on either end like a *Planorbis* or *Nautilus*, the animal effected these rapid movements by the alternate contraction and expansion of its foot which was broad and expanded and much larger than the shell, into which it seemed to have no power of withdrawing it.

There is another small Cowry occasionally found on the coast, resembling in colour the *C. adusta*, but not more than half the size

and less cylindrical in shape: Captain Congalton of the H. C. Steamer "Hooghly" obligingly sent me one that was lately fished up in "ten fathom" water near Sultan's Shoal to the westward of Singapore, the shell was partially imbedded in a species of sponge, on detaching it from which, I found the cavity of the spongy mass lined with the young fry of the *Cypræa*, differing however in several respects from that of the *C. olivacea*;—instead of being contained in one membranous envelope there were above two hundred transparent sacs not larger than grains of mustard seed and each containing about 30 shells so minute that they could not be distinguished without the aid of a microscope, at a moderate computation there could not have been less than six thousand young shells: the difference in size is remarkable as the *Cypræa olivacea* which had the largest offspring is a much smaller shell than the one at present under consideration: in this case I had not an opportunity of studying their habits &c. as the animals were dead, having been many hours out of the water; when examined under a microscope the shape of the shell was found to resemble exactly that of the young *C. olivacea* above described.

On various parts of the coast particularly on Coral banks, a considerable number of *Echini* may be observed which, (although Naturalists have separated them from the Testaceous Mollusca) it may not be out of place to mention here; one species in particular I cannot find to have been hitherto described; the shell is spheroidal, flattened, not more than two inches in diameter and of a dark purple colour, the spines are numerous, six or eight inches long, black, very slender and sharp pointed and somewhat elastic; the animal is found along the edges of Coral reefs, and moves with tolerable rapidity by means of its spines, when closely pursued it has the faculty of darting itself forward against its opponent and thereby inflicting considerable injury with its sharp spines, the points of which often break off and remain in the wound.

The foregoing remarks may in some measure suffice to shew what a wide field this country presents to those who have leisure or inclination to prosecute this branch of Natural History: should any other remarkable facts connected with the subject come to my notice, I shall be happy to give publicity to them from time to time in future numbers of the Journal.

CATALOGUE OF THE SHELLS OF SINGAPORE AND ITS VICINITY.

The Genera arranged as nearly as possible in conformity with Lamarck's System.

<i>I. Class. Annelides.</i>		Genus Anatina, 1 Species.	
Genus Arenicola,	1 Species.	A. hispidula.	
do Siliquaria,	1 "	Genus Lutraria,	1 "
S. anguina.		Genus Mactra,	3 "
Genus Dentalium,	3 "	M. spengleri & two others.	
D. elephantinum.		Genus Crassatella,	2 "
D. entale and another.		do Amphidesina,	1 "
Genus Sabellaria.	1 "	do Corbula,	3 "
do Terebella,	1 "	do Saxicava,	3 "
T. conchilega.		do Petricola,	3 "
Genus Spirorbis,	4 "	do Psammobia,	2 "
S. nautiloides.		do Tellina,	19 "
S. Carinata.		T. radiata.	
S. spirillum.		T. virgata.	
S. lamellosa.		T. spengleri.	
Genus Serpula,	1 "	T. rostrata.	
S. decussata.		T. lanceolata.	
Genus Vermilia,	1 "	T. lingua-lelix.	
V. tricoloralis.		T. rugosa.	
Genus Magilus.	1 "	T. gargadia and eleven others.	
M. antiquus.		Genus Lucina,	3 "
		do Donax,	2 "
		do Crassina,	3 "
		do Corbicula,	1 "
		C. regia.	
		Genus Cytherea,	8 "
		C. scripta.	
		C. picta and six others.	
		Genus Venus.	12 "
		V. squamosa.	
		V. casina.	
		V. decussata and nine others.	
		Genus Cardium,	"
		C. cardissa.	
		C. hemicardium.	
		C. papyraceum.	
		C. unedo.	
		C. flavum.	
		C. exiguum.	
		C. humanum.	
		C. ciliare and another.	
		Genus Cardita,	2 "
		C. caliculata and another.	
		Genus Cypricardia,	2 "
		do Arca,	13 "
		A. tortuosa.	
		A. semitorta.	
		A. tetragona.	
		A. navicularis.	
		A. barbata.	
<i>II. Class. Cirrhipedes.</i>			
Genus Balanus,	3 Species.		
B. tintinnabulum, and two others.			
Genus Creusia.	1 Species.		
do Anatifera.	1 "		
A. laevis.			
Genus Otion.	1 "		
<i>III. Class. Conchifera.</i>			
Genus Aspergillum,	1 Species.		
A. javanum.			
Genus Fistulana,	1 "		
F. clava.			
Genus Teredo,	2 "		
T. navalis and another.			
Genus Pholas,	4 "		
P. orientalis.			
P. striatus and two others.			
Genus Jouannetia,	1 "		
do Gastrochœna,	1 "		
do Solen,	8 "		
S. vagina.			
S. cultellus & six others.			
Genus Mya,	3 "		
M. truncata and two others.			

A. cancellaria.			A. ehippium and two others.	
A. antiquata.				
A. granosa & five others.			IV. Class. Mollusca.	
Genus Nucula,	1	Species.	Genus Hyalæa,	1
do Hyria,	1	"	do Chiton,	2
do Chama,	3	"	do Patella,	4
C. lazarus and two others.			do Parmophora,	1
Genus Tridacna,	3	"	do Emarginula,	1
T. gigas.			fissura.	
T. crocea.			Genus Fissurella,	1
T. squamosa.			do Calyptræa,	2
Genus Hippopus,	2	"	Genus Bulla,	6
H. maculatus and another.			B. naucum.	
Genus Mytilus.	6	"	B. ampulla and four others.	
M. bilocularis.			Genus Onchidium,	1
M. perna and four others.			do Helix,	7
Genus modiola,	3	"	H. tectiformis and six others.	
do Pinna,	4	"	Genus Pupa,	1
P. pectinata.			do Bolinus,	2
P. flabellum.			B. citrinus and another.	
P. squamosa and another.			Genus Auricula,	11
Genus Perna,	3	"	A. midæ.	
P. vulsellæ.			A. judæ.	
P. ehippium.			A. myosotis.	
P. femoralis.			A. minima.	
Genus Malleus,	4	"	A. scarabæus and six others.	
M. vulgaris.			Genus Cyclostoma,	2
M. albus.			C. involvulus and another.	
M. vulsellatus.			Genus Planorbis,	1
M. normalis.			do Lymnæa,	1
Genus Avicula.	2	"	do Melania,	2
do Meleagrina,	2	"	do Valvata,	2
do Lima,	4	"	do Paludina,	7
L. squamosa.			do Ampullaria,	1
L. inflata.			do Neritina,	2
L. fragilis.			do Navicella,	1
L. linguatula.			do Nerita,	7
Genus Pecten,	7	"	N. peloronta.	
P. pleuronectes.			N. polita.	
P. sinuosus.			N. versicolor,	
P. rastellum.			N. albicilla.	
P. flavidulus.			N. chlorostoma.	
P. varius and two others.			N. atrata and another.	
Genus Plicatula,	2	"	Genus Natica,	15
P. depressa.			N. mamilla & fourteen others.	
P. ramosa.			Genus Sigaretus,	1
Genus Spondylus,	3	"	do Stomatia,	1
S. gædaropus and two others.			S. phymotis.	
Genus Ostrea,	9	"	Genus Haliotis,	1
O. edulis.			do Tornatella,	4
O. imbricata.			T. flammea.	
O. folium.			T. solidula & two others.	
O. crista galli & five others.			Genus Truncatella,	1
Genus Vulsella,	1	"	do Pyramidella,	5
V. lingulata.			P. terebellum & four others.	
Genus Placuna.	3	"	Genus Scalaria,	4
P. placenta and another.			S. lamellosa.	
Genus Anomia,	3	"		

<i>S. varicosa.</i>		<i>S. incisus</i> and two others.	
<i>S. coronata</i> and another.		Genus <i>Cassidaria</i> ,	1 Species.
Genus <i>Delphinula</i> ,	3 Species.	do <i>Cassis</i>	1 "
<i>D. laciniata.</i>		<i>C. glauca.</i>	
<i>D. turbinopsis</i> and another		Genus <i>Purpura.</i>	9 "
Genus <i>Solarium</i> ,	1 "	<i>P. armigera</i> & 8 others.	
<i>S. perspectivum.</i>		Genus <i>Dolium</i> ,	1 "
Genus <i>Trochus</i> ,	13 "	<i>D. maculatum.</i>	
<i>T. rotularius.</i>		Genus <i>Buccinum</i> ,	6 "
<i>T. viridis.</i>		do <i>Nassa</i> ,	24 "
<i>T. granulatus.</i>		do <i>Terebra</i> ,	3 "
<i>T. niloticus</i> and nine others.		<i>T. maculata.</i>	
Genus <i>Monodonta</i> ,	5 "	<i>T. strigillata</i> and another.	
<i>M. labio</i> and four others.		Genus <i>Columbella</i> ,	7 "
Genus <i>Turbo</i> ,	7 "	<i>C. rustica.</i>	
<i>T. cochlus</i> and six others.		<i>C. fulgurans.</i>	
Genus <i>Planaxis</i> ,	1 "	<i>C. mercatoria.</i>	
<i>P. sulcata.</i>		<i>C. hebræa</i> and three others.	
Genus <i>Turritella</i> ,	1 "	Genus <i>Mitra</i> ,	14 "
do <i>Cerithium</i> ,	29 "	do <i>Voluta</i> ,	2 "
<i>C. petrosun.</i>		<i>V. undulata.</i>	
<i>C. asperum.</i>		<i>V. melo.</i>	
<i>C. zonale.</i>		Genus <i>Marginella</i> ,	5 "
<i>C. aluco.</i>		do <i>Ovula</i> ,	4 "
<i>C. vertagus.</i>		<i>O. verrucosa.</i>	
<i>C. telescopium.</i>		<i>O. triticea</i> and two others.	
<i>C. palustre.</i>		Genus <i>Cypræa</i> ,	20 "
<i>C. obtusum.</i>		<i>C. ciccrula.</i>	
<i>C. nodulosum</i> & twenty others.		<i>C. quadrimaculata.</i>	
Genus <i>Triphora</i> ,	1 "	<i>C. moneta.</i>	
do <i>Pleurotoma</i> ,	11 "	<i>C. urcellus.</i>	
<i>P. nodifera.</i>		<i>C. annulus.</i>	
<i>P. pleurotoma</i> & nine others.		<i>C. erosus.</i>	
Genus <i>Turbinella</i> ,	1 "	<i>C. rigzag.</i>	
do <i>Cancellaria</i>	1 "	<i>C. caput-serpentis.</i>	
do <i>Pyrgula</i> ,	7 "	<i>C. poraria.</i>	
<i>P. rapa.</i>		<i>C. olivacea.</i>	
<i>P. ficus.</i>		<i>C. adusta.</i>	
<i>P. elongata</i> and four others.		<i>C. arabica.</i>	
Genus <i>Ranella</i> ,	3 "	<i>C. tigris</i> and seven others.	
<i>R. spinosa</i> and two others.		Genus <i>Trivia</i> ,	1 "
Genus <i>Murex</i> ,	6 "	do <i>Oliva</i> ,	2 "
<i>M. saxatilis.</i>		do <i>Conus</i> ,	6 "
<i>M. crassispina.</i>		<i>C. praelatus.</i>	
<i>M. adustus</i> and three others.		<i>C. marmoreus</i> & 4 others.	
Genus <i>Pteroceras</i> ,	3 "	Genus <i>Nantilus</i> ,	1 "
<i>P. chiragra.</i>		<i>N. pompilius.</i>	
<i>P. lambis</i> and another.		Genus <i>Argonanta.</i>	1 "
Genus <i>Strombus</i> ,	7 "	<i>A. argo.</i>	
<i>S. cancellatus.</i>		N. B. In addition to the Shells above enumerated there are ten or twelve kinds for which I cannot find a place among Lamarck's Genera.	
<i>S. auris dianæ.</i>			
<i>S. luhuanus.</i>			
<i>S. labiosus.</i>			

THE ORANG BINUA OF JOHORE.

INTRODUCTORY.—A paper by Dr. Bland on the rocks of Sídílí Point, on the east coast of Johore, had long invested that locality with a peculiar interest in my eyes, for the fossil tree and burnt corals which he describes, seemed to indicate its possession of proofs, for which I had sought in vain in many other places, by which the epoch of what I have termed the ironmasking of the unreduced aqueous rocks of the Peninsula might be determined. In December 1846 I endeavoured to reach it by crossing from Kotá Tingí on the Johore river, but the constant rain which attended my examination of the banks of the river, and the ignorance of the Malays who accompanied me of the precise route, prevented my succeeding. The recent discoveries of coal deposits in the northern division of the Peninsula gave a new importance to the traces of ligneous fossils in other parts, and rendered it desirable that every accessible locality where rocks are exposed should be examined as opportunities occurred. It was not until the beginning of last month (September) that I was enabled to visit Sídílí. I had been invited by the honourable the Governor to examine the coal deposits along the coast to the north of Pinang to which the Steamer Hooghly was to be despatched in October. It happened, however, that the only few weeks of leisure which I could secure for a geological excursion occurred in September, and on expressing my desire to devote them to an exploration of the east coast and islands of Johore,—with a view to ascertain whether they contained any indications of the presence of coal,—if any of the gunboats should have occasion to proceed to the eastward during that time, Colonel Butterworth placed one of them at my disposal. Whatever information therefore has been the fruit of the voyage is due to his desire that our great and discreditable ignorance of the geography, condition, and resources of a large part of the Peninsula, in which our possessions in the Straits give us a strong interest, should be removed. To make the most of the opportunity, I endeavoured to procure Malays to take a boat up the Johore river, in order that, in returning, I might cross to it from the coast, and visit the tribe of Jákuns who were said to live on its upper branches. Failing in this, I abandoned the intention of returning by land, but still cherished the hope that I should meet with the aborigines in some of the rivers on the eastern coast. I therefore proceeded round Point Romania and along that coast to Kwállá Sídílí, examining its geological features as we advanced. Four days were given to the

river of Sídílí Besár, the largest and only inhabited one on the east coast of Johore, and to the ascent of a mountain inland, from the summit of which an extensive view over eastern Johore was obtained. On the Sídílí no aborigines were found, but the Malays informed me that they were numerous on the Indáu, the first large river on the coast of Páháng. On leaving the Sídílí we sailed for the group of islands of which Pulo Tingí is the most remarkable, and where the orang 'Tambusá (sometimes called Sea Gypsies) have a village. We next made for Pulo Pamángíl (P. Písáng of the charts) and having skirted it, proceeded to the largest of all the eastern islands, P. Tíomán (P. Timoan of the charts.) Having previously obtained an account of Pulo Aor and some specimens of its rocks, it did not seem advisable to incur the delay of two or three days which a visit to it would have required, and we therefore directed our course towards the mainland, intending to touch at the islets which lie between it and Tíomán. Unfortunately we made no progress until late in the day, and when at last a breeze came to our assistance the Seráng considered it necessary to seek an anchorage off the coast of the mainland. In the morning we found ourselves to the northward of Kwállá Indáu. After landing on some islets we entered the Indáu, which is one of the largest rivers on the eastern coast. On the 21st. I left the gunboat and proceeded up the river in my sámpán. Next day we reached the first kámpóng of the oráng Binná, that of the Bátín Hambá Rájá. Above this the river divided into two branches, the Anák Indáu on the north, and the Simrong on the south. We followed the Simrong until, on the morning of the 23rd., we reached the place where it is joined by a large branch from the south called Súngí Mádé. Having learned that from the upper part of the Simrong a day's walk would bring us to one of the principal rivers of the west coast, the Bátu Páhát or Río Formosa, which I had partially ascended on my way from Malacca in February last, I resolved to cross to the point which I had reached from the Straits of Malacca, and thus complete a line of observation across the Peninsula. It appeared further that by ascending the Mádé I would approach within two or three day's walk of the Johore river, and I determined, on returning from Bátu Páhát and after ascending the Anák Indáu, to endeavour to reach Singapore by striking through the centre of Johore and gaining the source of the Johore river. At Kwállá Mádé I procured a small canoe, the Simrong having suddenly become so contracted, rapid, and obstructed by fallen trees, that the sámpán could not proceed. On the second day from Kwállá Mádé we

arrived at Tâmo, where we found the To Jimáng, the Malay who governs the district of the Indáu. Next morning we resumed our course, the river totally changing its character, becoming broad, deep, and slow, and then passing into a chain of small lakes. Above these it contracted again, and in the evening, when we arrived at Pákam, our guide did not consider it advisable in the shallow state of the river, and without smaller canoes, to ascend to Slábin where the usual route to Bátu Páhát lies. We therefore left the canoe and struck into the jungle. After two days hard walking, resting the first night in an open Binná hut and the next on the ground, we arrived on the afternoon of the 27th. at the Boko or Páu, one of the principal branches of the Bátu Páhát. Next day I descended to the place which I had reached from the western coast and where the other branch, the Simrong, joins the Páu and forms the Bátu Páhát. The time occupied in reaching the Batu Páhát from the mouth of the Indáu having proved longer than I had been led to expect, I endeavoured to procure a boat and return at once to Singapore by the Malacca Straits, but was unsuccessful. We therefore again turned our faces to the east, and by the 30th. had retraced our steps to Pánkállan Pádáng (between Pákam and Tâmo) where the Bántará lives. Here I met a Javanese who had recently crossed to the Johore from the Simrong, and on making further enquiries it appeared that this was probably a better route than that from the Mádé. The Bántará however made many difficulties in procuring a guide, and I was obliged to be satisfied with a promise that if the Mádé was found to have too many obstacles, and I should return to Pánkállan Pádáng, he would furnish me with guides. Next morning (1st. October) we proceeded on our way down the river, but had hardly passed the branch which conducs to the Johore path, when we fell in with an old man who cheerfully consented to act as guide to Johore, and as it was now necessary to abandon the intention of visiting the Anák Indáu, or any other localities, and to reach Singapore as soon as possible, I placed myself under his guidance, and sent instructions to the Serang of the boat to return without delay. Four days walking brought me over the central mountain chain of Johore, (of which Gunong Lulúnut forms the principal member,) and past the source of that river, to Pánkállan Tinkalá on its right bank. Here a canoe was procured which carried us with great rapidity down the stream nearly to Kotá Tingí, where I had the good fortune to find the Rájá Kichí. On learning my anxiety to reach Singapore without delay he, with great kindness, offered to proceed at once in his own boat, as no other was

immediately obtainable. We reached Pulo Tikong in the course of the night and would have arrived in Singapore early next day if the wind had not risen and obliged us to anchor. A similar cause detained us for some hours at Chángie, and it was not until the evening that the month's excursion was brought to a close. Its principal result has been the elucidation, to some extent, of the geology, geography and productions of a portion of the Peninsula previously unvisited by any European. Amongst the most interesting discoveries, not relating to geology, were the finding of the source of the Johore river in a high mountain chain nearly in the centre of the country; the ascertainment of the courses and affluents of the Sídísí, Indáu and Rio Formosa; the singular and unexpected fact that one river retaining the same name, S. Simrong, forms a principal branch of the Indáu on the one side and of the Rio Formosa on the other, so that there is thus a river communication between the Straits of Malacca and the China Sea; and lastly the equally unexpected fact that the interior of the country visited is inhabited by a tribe distinct from the Jákuns, and who, as the most southern of the Asiatic aboriginal tribes, as well as on many other accounts, deserve the attention of the possessors of Singapore. This people appears to me to have such paramount claims to the exertion of our influence on their behalf, first to free them from the oppressive thralldom in which they are kept by the Malays, and then to ameliorate them by christianity and education, that I should not consider myself justified in delaying to communicate the impression made on my mind during the fortnight I was amongst them. With my attention directed to other things, and obliged to be almost continually in motion, I cannot offer any thing approaching to a complete account of them, and whatever confidence I may have in my general impressions and conclusions, I fear that I may have fallen into some mistakes, while I am certain that many traits necessary to a correct estimate of the tribe, both ethnologically and morally, can only be discovered by a longer sojourn amongst them under more favourable circumstances. Some apology is also due for the rough manner in which my remarks have been thrown together. They have been written during indisposition brought on by the fatigue and exposure of the journey. I thought it better to attempt to do so under all disadvantages while the impressions of my visit were quite fresh. In subsequent contributions I propose to give a geographical and geological description of all the places which I visited, with a detailed narrative of the journey, and this will enable me to supply some of the deficiencies of the present paper.

THE BINUA OF JOHORE.*

THE COUNTRY OF THE BINUA.—This people occupy all the interior of Johore properly so called, or that portion of the ancient kingdom of that name over which the Tamúngong now exercises the rights of royalty. They also possess the interior of the most southerly portion of Páháng. The most definite description of their territory however is, that they occupy the upper branches of the last or most southern system of rivers in the Malay Peninsula, that is of the rivers Johore (the Lingfú and the Sáyong) Binút, Pontfán, Bátu Páhát or Rio Formosa (the Simpáng Kíri, Páu, and Simrong with their numerous affluents) and Indáu (the Anák Indáu, Simrong and Mádé), with the country watered by them. By means of these rivers a constant communication is maintained between the families of the Binuá on the two sides of the Peninsula. It has already been noticed that the Indáu and its branches are directly connected with the Bátu Páhát and its branches by the Simrong. The other principal branch of the Bátu Páhát, the Páu, is connected with the Slábin, a branch of the Indáu, by a path of only one day's journey. Paths lead from the Mádé and the Simrong to the Lingfú, thus connecting the Johore with the eastern rivers, while it is still more closely united to the western by its other branch, the Sáyong, which rises in the same low hill from which the Binút issues. I found no Binuá on the river Johore below the junction of the Sáyong and Lingfú. There are none on the Puláf; and the aboriginal families on the Tamrao and Sakodai, which fall into the old Straits of Singapore, (ORANG SABIMBA) were recently imported by the Tamúngong from the island of Battamto the south of Singapore, for the purpose of collecting tábán (Gittáh Perchá.) The river nomades (BIDUANDA KALLANG or ORANG SLETAR) and the sea nomades (ORANG TAMBUSA, termed also ORANG LAUT and RYAT LAUT, people of the sea, &c., who lurk about the estuaries and creeks of the Johore, Libbam, and other rivers along the southern coast of the Peninsula are distinct from the Binuá, and cut off from all communication with them. What is remarkable, the Binuá have never been known on the upper part of the Sídílí although it has its source in the same mountains where the Johore

* This is not a very legitimate use of the word Binuá,—“oráng Binuá” literally meaning the people of the country. It did not appear from the enquiries which I made in many places, that they ever had any distinctive name. The Malays term them “oráng után” men of the forest, “oráng darat liár” wild men of the interior, &c., epithets which they consider offensive, and the Malays generally address them as “oráng ulu” people of the interior, or rather of the upper part of the river,

and the Mádé rise. On the north west they do not extend beyond the Simpáng Kírí and Páu. About half a day's walk from the source of the former rises an affluent of the river Muár called Sungei Págo, which gives its name to a tribe found on its banks and amongst the adjacent hills. The Binuá described the oráng Págo as a wild race, naked, without houses, shunning all intercourse with the Malays, and having very little even with them. If this description be correct they are probably a secluded and rude branch of the Udaí, or, it may be, of the Jákuns. Whether the Páháng tribes immediately to the north of the Indáu (who are said to be very numerous,) are similar to the Binuá I had no opportunity of ascertaining, but the Binuá inhabiting the country which I have indicated, whether they are as distinct from the tribes on the north east of the Peninsula as they are from those on the northwest or not, undoubtedly form a separate tribe in themselves; for, while they are all mutually related, they have no connection with any other tribes, and hardly any knowledge of such. Their language, appearance, and habits are similar. They describe themselves as being "leaves of the same tree." I met with individuals on the Indáu who had relatives and acquaintances on the Lingú, Sáyong, Binut, and the branches of the Batu Páhát, and who had visited all these rivers: but beyond this circle their geographical ideas were almost a total blank.

As I shall have occasion in the sequel to compare the Binuá of Johore in some respects with the group of aboriginal tribes inhabiting the next system of rivers, I extract a brief account of their distribution from an unpublished narrative of an excursion which I made into Nániug and Rambáu in February last and in which some information obtained subsequently is now embodied.

The lofty Gunong Bermun (which is probably nearly one hundred miles to the north of the Lulúmut group) with the mountains which adjoin it, may be considered the central highlands of these tribes. In the ravines and vallies of Gunong Bermun two of the largest rivers of the Peninsula, the Páháng and the Muár, with their numerous upper tributaries have their source. There also rises the Simújong which unites with the Lingí.

The upper part of these rivers and many of their feeders are occupied by five tribes of aborigines differing somewhat in civilization and language. The UDAI (who appear to be the same people who are known to the Binuás of Johore under the name of oráng Págo) are found on some of the tributaries of the Muár, as the Segámet, Pálungan and Kápí, and in the vicinity of Gunong Lédáng. This

tribe has less approximated to Malayan habits than the others. The **JAKUN** partially frequent the same territory, the lower part of Pálungan, Gáppam &c., and extend northwards and north westward within the British boundaries. They are found at Tidong, Ayer Chírmán, Ayer Itám, Darat Yassin, Ulu Kissáng and Bukit Síngér. The **MINTIRA**, the largest tribe, dwell around Gunong Bermun and the adjacent mountains, G. Rissam, G. Lichá, G. Singwáng, G. Kámuníng, G. Kayu Libét and G. Garun. They possess the higher part of both the western and eastern streams. Thus they occupy the Tríang, Simplas, Gipau, Bangkong, Gáding and Túang. On the south they frequent the upper part of the Lángát &c. Amongst the other streams occupied by them are the Limámá, Ayer Mángís, Lángkap, Kunu, Kápáyáng, Náháchá, Sábángas, Sábulu, Sénéng, Jimpul, Báýái, Tapak, Jilibu, Singí, Bérumpun, Klassa, Jinám, Kamén, Trus, Bilabong, and Kláwáng. The **SAKAI** succeed to them in the interior, frequenting the neighbourhood of Gunong Kinábuí. On the north west the Mintirá march with the **BESISI**, one of the most numerous tribes, who occupy all the streams flowing in that direction from Gunong Bermun and the mountains lying to the southward of it, as G. Angsí, G. Berágá and G. Dátu. It is this tribe which occupies the Sungei Ujong and Língí, the Lukut, the Sippáng, and the lower part of the Lángát, with their feeders, the Kálláng, Pijam, Tiké, Jíjan, Lámar, Galláh, Lábu, Chíncháng, Tríp, Girintul, Rámí, Láná, Gimru, Pínáng &c.

Although these five tribes, (as well as those inhabiting all the interior of the Peninsula to the north), are sometimes called Oráng Binuá, I shall, in this paper, restrict that designation to the aborigines of Johore, and term the next group the Bermun tribes, from the circumstance of most of the streams on which they are found rising in the Bermun mountain system, receiving accessories from it, or joining rivers which have their source in its ravines.

If the reader will refer to a map of the Peninsula, he will remark that on reaching the parallel of $2^{\circ} 52'$ N. (which passes through Parcelar hill on the west, and the northern part of P. Tíoman on the east, coast), the western shore of the Malacca Straits is suddenly deflected to SE. by E., a direction which it pursues with almost undeviating regularity to the extreme Point of the Peninsula, Tanjong Buru (or Bousus), and which causes a rapid contraction in the breadth of the Peninsula. This narrow extremity of the continent, resting on the above parallel, (or perhaps more correctly on a line, at right angles to the range of the Peninsula, joining Parcelar hill and

the estuary of the river Pahang,) and which may be termed the Lands End of Asia, is the country inhabited by the tribes noticed in this paper.

With the exception of the Lulúmut mountain group, in which the Lingú, Sídli, Mádé and Káháng rise,—and which sends a less elevated chain towards the place where the waters of the Simreng flow on the one side to the east and on the other to the west,—the whole country of the Binuá is flat, or undulating, or slightly hilly. It is everywhere covered by the most luxuriant and magnificent forest, which nature has so abundantly provided with edible fruits and animals, that if the Binuá were deprived of every other means of subsistence they would still have a sufficient supply of the necessaries of life. The climate is rainy; and the almost constant moisture produces towards morning a degree of cold which renders a thick blanket indispensable to the European, and causes the Binuá to crouch round their fires. The alluvial tracts, and particularly the plain of the Páu, are at this time enveloped in dense fogs, which are said to prevail all the year round.

A fuller account of the country will be given afterwards. I have here only mentioned such particulars as are necessary to understand the condition and mode of life of the Binuá.

PERSONAL APPEARANCE OF THE BINUA.—In personal appearance the Binuá bear a strong family resemblance to the Malays; and I remarked of many of them, as I had previously done of the Besísí, that the difference was scarcely appreciable so long as they remained at rest and silent. In other words the air, manner, and expression, constitute the great distinction between them. In one or two rare instances even this was almost wanting. The Bintará of Boko in his bearing and manner so much resembled a quiet, shrewd, old Malay trader, that the Malays who accompanied me considered him to be such until his pronunciation betrayed him. The great majority however are, at the first glance, distinguishable from Malays. The most constant and obvious characteristic is the eye, which, as in the Bermun tribes, is soft, mild and with a liquid brilliancy, very different from the dark cloudy aspect of that of the Malay at once adapted to veil his real thoughts and objects and give expression to wounded pride and revenge. In some of the women it is eminently soft, lustrous and confiding. I only noticed in two or three of the men that habitually wild expression which occurs more frequently among the Bermun tribes. The mouth varies greatly, but in all is open, and entirely devoid of the degree of firmness which generally characterises

that of the Malay, but which is sometimes wanting in them also. In a considerable number the lips are thick and projecting, and this is sometimes carried so far that they are as prominent as the nose which seems to sit on the upper lip. The lips do not form an acute angle but are often almost in a line. In one instance they even departed further from the Malayan standard and formed an angle greater than two right angles. The forehead has a moderate slope and in itself is well formed though small. But it is disproportioned to the face, the middle part of which, between the posterior part of the lower jaw and the upper part of the cheek bones, expands laterally much beyond the base of the forehead. The nose is always low and generally thick and lumpish, (the bridge being insignificant and causing it at a little distance to appear like a low pyramid) whereas in the Malay, altho' it is frequently of the same description, it is sometimes seen higher and more shapely. Several classes of faces were well marked, and to convey any accurate idea of the prevailing physiognomies at least a dozen portraits would be necessary. The same remark, it may be mentioned in passing, applies to the Malays, and probably to most races, and any one may satisfy himself of this on looking at the portrait of a Malay given in Dr. Prichards' *Natural History of Man*. There are many Malays of a similar type, but it is far from being the predominating one, and it conveys an erroneous and unfavourable impression of Malayan physiognomy. The safest method in works of the kind would be to give examples of all the most prevalent types. The general shape of the head and features of the Binuá assimilates to the Malayan, although it is decidedly smaller; but I am not sure whether more examples might not be obtained of approximation to Bugís faces than to Malayan. I noticed many faces which reminded me of Bugís, and amongst the Mintirá and Besísí this type also occurs. The rounded swelling forehead of the Bugís, however, which rises evenly from the cheek bones and gives a distinctive character to their physiognomy, detracts from this resemblance, which appears to be caused mainly by the almost feminine fullness, smoothness, and symmetry of all the outlines, the absence of angular prominences or depressions, and the pleasing softness and simplicity of the expression—all which are wanting in the Malay. It should be added that the Bugís countenance bears an impress of intelligence, feeling, and sometimes, if it does not belie them, of a genial sensibility and imaginativeness. In many cases the Binuá face is fat and fleshy, and all the features heavy, but in general, although full and rounded, it is not fat. The greatest breadth is commonly across the cheek bones, but in

several instances where the jaws were prominent the lower part of the face was broadest. In contrast with these others were seen with oval faces, well cut and slightly aquiline though low noses, and neat chins, and the whole face free from that over abundance of flesh with which many others are furnished. The outer extremity of the eyebrows was frequently directed upwards in a greater degree than I have observed in Malays. Viewed in profile the jawbones are seen to advance more than in the Malays in general, so that the chin, lips and extremity of the nose are in one line, approaching to vertical, which forms an obtuse angle with that on which the nose and forehead are placed. The anterior extension of the jaws on the one hand, when the face is viewed from the side, and the outward projection of the lower jaw combined with the marked lateral compression of the forehead, on the other hand, when the face is viewed from the front, would appear to give to the head a place intermediate between the prognathous and lozenge shaped or pyramidal forms. Physically they may be considered as a link between the negro and brown races of the Archipelago. The general expression of the face denotes good nature, mildness, innocence, content, want of mental energy, and reflectiveness, and a predominance of the senses over the intellect. The complexion is generally similar to that of the Malay, but amongst the varieties which it exhibits I noticed several who were much fairer than any Malays. The hair is black and in general smooth and lank, but in some it is frizzled, and in all somewhat more dry and tangled than in the Malay, arising from the little oil which they use. It is worn long or cropped short, as with the Malays, according to the taste of the individual. Some old women had long discontinued the use of oil, and their dry, rusty, unkempt locks aiding the effect of their piercing sinister eyes, which almost seemed to be touched by insanity, frightened some of my Malays not a little, and so persuaded were they that the old ladies had evil eyes, that they felt greatly relieved when I left the house. I met a few individuals whose bodies were completely covered with a scaly scurf. The children were often dull, burdened with fat and very timid, but many were lively, bold and engaging; and my Malay followers every where remarked that in appearance they could not be distinguished from Malayan children. One child I noticed whose eyes wore an expression of the last degree of fear, and whose eyebrows and features generally were as like those of a monkey as it is possible for a human face to be. But this physiognomy is also found amongst the Malays.

The body is smaller and in general shorter than that of a Malay, but is handsomer and less heavy. But the great length of the trunk in proportion to the limbs sometimes destroys the effect of the slighter and neater build. The chest is generally broad and full, and the shoulders narrower and less sloping than in Malays. The pelvis is not so broad and the limbs in particular are lighter, neater, and often well shaped. They are almost all in excellent condition without being too fat, although the softer sex has often a tendency to obesity. The comparative shortness of stature, and the smooth, rounded, surfaces which the person presents throughout, in a large majority of the Binuás, add to the Bugís aspect which is often observable amongst them.

Most of the preceding remarks may be extended to the Bermun tribes.

DRESS.—The original dress of the males, to which a few individuals whom I met are still restricted, is the *cháwát*,—a narrow strip of cloth passing between the legs and fastened round the waist. With these exceptions all were provided with the Malay *sluár**, *báju*†, *sárong*‡, and *sáputáŋgan*§, or some of them, but often in so ragged a condition as to shew that they carried their wardrobes on their persons and were seldom able to renew them. With the exception of one house, where the mistress lay in a corner and appeared to be, like her husband, totally destitute of clothes, I found the women everywhere wearing a short sarong fastened at the waist or a little below it, and barely reaching to the knees, being in fact the half of a Malay sarong. This is the only garment which they possess, but in a few families, such as that of the *Bintará* of Boko, some of the females wore the Malay *báju*. The hair is bound in a knot behind. From the great desire universally expressed for pretty *sárongs*, *bájus*, handkerchiefs and ornaments, we must do the Binuá ladies the justice to believe that they would willingly deck themselves in the full Malayan costume if they had the means. The only ornaments which they possess are plain brass rings and bracelets. Their ears are pierced, but the orifice, which is of the diameter of a quill, is more often occupied by a *roko*, (a kind of small cigar) or a piece of cloth, than an earring. The *Mintirá* females have wider perforations. They are enlarged to the diameter of about half an inch by inserting a wooden pin or roll of pallas leaf, which is gradually increased till the desired width is acquired. Pendants are not worn, but many

* Short trousers. † Jacket. ‡ A sort of petticoat, § Headkerchief.

have silver subángs about the size of a Company's Rupee made by Malays,—and similar to those worn by Javanese females. Silver rings are also worn. They bind the hair in the same way as the Johore Binuás.

Many of the Mintirá around Gunong Bermun still wear the bark of the tiráp, the men using the cháwát, and the women a piece of rude cloth, formed by simply beating the bark, which they wrap round their persons, and which, like the sarong of the Johore females, reaches only from the waist to the knees. The Udái females wear the cáháwt like the males.

They have no description of shoe, sandal or slipper, and no articles for the toilet.

HOUSES, FOOD, MODE OF LIFE, HABITS, CHARACTER.—The houses vary greatly in size, neatness and finish. They are much slighter and ruder than the cottages of the Malays, the greater part consisting of only one small room raised on thin posts made of saplings, with a rough flooring of small sticks placed at irregular distances and sometimes with such large gaps that children are liable to all through. The sides are made of bark,* generally enclosed all round, but sometimes with only a piece of bark here and there, and I have slept in houses three sides of which were quite open. A rude and very narrow and steep ladder leads to an open doorway. The roof is covered with leaves, commonly those of the sirdáng, which answer as well as the áttap but last only half as long. The dáun pállás and other leaves are also occasionally used, and I was told that the straw of the paddy is sometimes collected for thatch. The floor is at various heights, from five to nine feet, above the ground. In localities where elephants abound it is generally high. Houses of greater pretensions are sometimes seen. On the Páu I visited one which, under one roof, had a large hall with an elevated recess facing the door, where guests sat during the day and slept at night. On the sides were two large rooms and a long narrow apartment with two fire places and an array of culinary utensils. An open platform, a foot or two below the level of the floor, connected the hall with other two bed rooms under a separate roof. At Payah Sandar near the Simrong I visited another large cottage which, in addition to bedrooms partitioned off, had several recesses with curtains of coarse cloth hung before them. Mats and pillows for sleeping are found in every

* The bark of the Kippong is chiefly used for this purpose both in Johore and by the Bermun tribes.

house. The Bermun tribes have mats, but in general no pillows or curtains. Coarse Chinese curtains are common, but they are often wanting, and where this is the case the whole family, with the guests, sleep in the same open apartment, and sometimes packed rather closely together. There are usually two fire places, and these, in the larger huts, are sometimes in a separate room, but they are in general on one side of the single apartment, where the floor is depressed about a foot. They are furnished with the ordinary pots and pans used by the Malays, and have also small supplies of the coarsest Chinese plates and saucers. Water is carried and kept in the shell of a peculiar species of large melon which they cultivate, and which forms a very neat and serviceable, though not durable, jar. The bambu is converted to the same purpose but not often. The melon and bambu are also used by the Bermun tribes. The stem of the oná with the thorns broken off forms a strong and very effective grater. This is also used by the northern tribes. Pieces of hard wood cut into neat shapes, and curved slightly, serve, with the half of a cocoanut shell, to bruise chilis and other condiments. Malays generally have adopted a pestle and shallow mortar of stone for this purpose. The Bermun tribes use wood and cocoanut shells like the Binuás, and Javanese also prefer these. Most of the seasoning is supplied by the Malays, such as onions, kunyit, &c. The cultivated roots are prepared in different ways. Between meals, or when a person comes in hungry, they are roasted amongst the embers. For regular meals they are grated down or simply boiled with the addition of hogs grease or vegetable oil.

The following articles were found in a comparatively well furnished Mintirá hut occupied by two men, two women and two children, two timíangs (sumpítans) several parangs and axes, 2 dammer stands, 2 iron pans, 2 earthenware pots, 2 santongs (a kind of basket termed by the Malays *garíng*) 2 plates, 2 cups, 5 small tea cups, 4 earthenware spoons, 7 sarongs, 3 bajus, 3 siluar, 4 waist bands, 4 headkerchiefs, 1 pair of subangs, 3 hair pins, and 3 copper rings. The Mintirás have three meals, morning, midday and evening. No kind of food comes amiss, if it does not intoxicate or poison them.

The Binuá use sirí, but not to excess like the Malays. The gambier, betelnut and lime which are eaten with it, they, like other aborigines, obtain from the Malays.* Their favorite luxury is tobacco, and both sexes freely indulge in it. The women are often seen seated

* Some of the Mintirá cultivate gambier.

together weaving mats and each with a roko in her mouth. When speaking it is transfered to the perforation in the ear. When they were met paddling their canoes, the roko was seldom wanting. The Mintirá women are also much addicted to tobacco, but they do not smoke it. The means of obtaining a light are so simple that there is no occasion to carry fire on their journeys. On my way from Pinés to the Lingiu my two guides asked me to allow them to go to a small deserted tábán hut near the path for a little. As their absence was prolonged beyond what was agreeable to me, for a heavy rain was falling, I went to the hut where I found them extended comfortably and smoking rokokos, and it was with great difficulty that they could be induced to resume the journey. They had procured a light by making the end of a piece of dry stick rapidly revolve in a cavity made in another stick.

The principal cottage is made in the ládáng, or piece of ground that has been last cleared. This is usually at some distance from the bank of a river, to avoid the inundations which occur after heavy rains. Offerings are made, as by the Malays, to the Jín Búmi on commencing to fell the forest. When a sufficient space has been opened, the trees are left for some months to dry. They are then burnt, and holes are made with a stick in the ground, which is enriched by the wood ash, for the reception of plants and seeds brought from the old ládáng. The cultivated plants found in almost every ládáng are the klèdí (the principal substitute for the potatoe) the úbí Bengálá, the úbí káyu, the water melon, and the sugar cane. Plantains occur frequently but not abundantly. Maize is not so common as with the Bermun tribes. The wild leaves used as vegetables by these tribes,—such as the lipú, álung, chinárong, báyam, mámán umut ní bong, u. lángkap, u. ánow, u. rúmút u. cháchéng, u. dám-pong u. noin, u. klássá, u. limpét, u. chéché, u. smambu, u. sírdang; daun páku, d. jílátáng, d. tubá, d. kápáyá, d. kaúm, d. simomo, d. pápíjih, the roots of the gádong, gupul, bájon, kluná, líntáng, trágél, dágon, tukíl, kúng, wuán, woól, pumu, kapáyáng, &c.,—did not appear to be resorted to in Johore. In many ládáangs tobacco is cultivated, and in a few I noticed some kinds of bean (kácháng búng-ak &c.) In a considerable number of the ládáangs a portion is set apart for the growth of rice. The dry or wet cultivations are resorted to according to the locality, but the former is most general. Flowers are neglected. I only noticed a single instance of their cultivation, and they are never worn in the hair. It must be remembered however that their dwellings are environed by one vast botanical gar-

den, and that the river banks are hung, and the forest paths strewed, with a great variety of beautiful flowers. All the remarks in this section, with the slight exceptions mentioned, apply to the Bermun tribes.

The ládáng having been once formed receives no culture, and is left entirely to the control of the women who are never for a moment idle. In the morning, having first refilled the melon skin with water, they fasten a deep basket on their backs by means of straps passing over the shoulders and head, and proceed to collect klèdí, sugar cane &c. for the mornings repast. Breakfast cooked and dispatched, they employ themselves in nursing their children, and weaving mats and bags, until it is time to go out and fill their baskets again for the evening meals. If the men are at home a slight meal is also prepared in the middle of the day. The only employment at a distance from the ládáng which they share with the men, and sometimes pursue by themselves, is angling. Many families have small huts on the bank of the nearest stream where they keep canoes, and men, women and children, usually one in each canoe, are every where met with engaged in this quiet occupation. They have other modes of catching fish. The most common is by small portable traps woven of rattans. Rows of stakes are also used. But the most elaborate engine by which the rivers are sifted of their denizens consists of a large frame work, like the skeleton of a bridge, thrown right accross the stream, and at a level some feet higher than the banks so as to be above inundations. A line of stakes is fixed accross the bed, an opening being left in the middle. Above this the Binua takes his seat on a small platform, sometimes sheltered by a roof, and suspends a small net in the opening. On this he keeps his eyes intently fixed, and as soon as a fish enters, he raises his net and extracts it. The rivers and streams abound in fresh water fish, and there are about fifty species, the names of which will be given in the more detailed account of the country which will follow.

But it is in the forest that the men seek their principal supplies of animal food. The favorite dish,—the flesh of the wild hog,—is also that which is procured in the greatest abundance. I passed several tracts which seemed literally to swarm with the hog. For miles together the banks of some streams were covered with the prints of their feet, and in some moist hollows their tracks were so abundant that it was impossible to recognize the path, and my guide repeatedly lost it. In other districts again they seemed to be less numerous. They are particularly plentiful in some places to the southward of the Lúlu-

nut chain, and the men of the ládáng of Kámpong Pohon Durián on the Pinés, a few days before my arrival there, had killed fifteen. They are attacked with dogs and spears. Of the two varieties of dog which the Binuá possess the larger is the proper hunter of the hog, although the smaller is also joined in the chase. The spear head, which is of native fabrication, is broad and very thin towards the edges. It is mounted on a shaft about eight feet long, and forms a light and serviceable weapon, without which the Binuá never ventures into the forest or goes upon a journey, and in the efficiency of which, for defensive and offensive needs, he has much confidence. When he enters a house the spear is stuck, with the head upwards, into the ground in front of the door way.

Next to the hog, deer are most sought. The kījáng and rusá are chased by the large dog, and the diminutive palándok or moose deer by the small variety, which is in general reserved for this purpose. It has some resemblance to a Bengal fox and appears to be allied to the Chinese breed. The most common mode of hunting the palándok is to send the dog into the jungle on the side of a stream, the Binua slowly floating down the current or pulling against it in his canoe, and cheering and guiding the dog by his deep, long drawn, monotonous cries of oh! oh! oh! The dog on running down a palándoh is said to break its legs, and by its barking to direct the hunter to the spot. The only domestic animals besides the dogs, of which several are found in every cottage, are fowls of a large breed, and the common Malay cat.

The unká, krá and probably other species of monkeys are used as food, but I believe not frequently, and although the Malays assert that snakes are eaten I could find no corroboration of the statement while amongst the Binuás. Snakes (as well as all the wild animals above mentioned) are used as food by the Bermun tribes. They are discovered by the dogs. Those principally sought are the ular sáwá u. tidong, u. ípong, u. nágá. u. gássing, u. sáwá ríndam, u. ripúng u. ulabat, u. ringkup, u. síu, u. mánáo, and u. kámong. The sáwá and ripung are the best flavoured. They have all a fishy taste. Several kinds of snakes, although the teeth are carefully removed like those of the preceeding species, cannot be used, the aborigines asserting that their flesh is poisonous.

A formidable and effective snare is used by the Johore Binuá as by the Bermun tribes, for capturing or killing the deer and hog, and the tiger is said not unfrequently to be destroyed by it. It consists of a slight and rude fence carried to a considerable length across the

ground which it is expected the animals will traverse. At every twenty or thirty feet openings are left, between which spears are fixed parallel to the fence and close to it, and of which the heads reach across the openings. The end of the shaft is fastened to the extremity of a horizontal sapling freshly cut, highly elastic, and about fifteen feet in length and 2 to 2½ inches in breadth. The other extremity is fastened to a strong stake driven into the ground, and within a few feet of this another stake is placed in such a direction that when the sapling is forcibly bent back on it for two or three feet it is perpendicular to the fence. The method by which it is retained so retracted is equally simple and effective. A rough pole secured by two stakes is placed parallel to one of the poles of the fence, on the side where the spear and its other apparatus are, but at a level a little below that of the spear. A stick a few feet in length is bound firmly at one extremity to the sapling so as to be parallel to, and on the same level as, the spear, while the other extremity well smoothed is made to pass under another stick at right angles to it, and of which the ends pass under the two poles. The sticks retain their position by their mutual pressure. To this cross stick a black string, thin but very strong, is fastened. The other end of the string is attached to the further side of the opening and the portion passing across it is made to hang loosely. When an animal enters the opening the pressure of its body on this part of the string pulls the cross stick forward. An advance of less than an inch releases it, and the instant the stick which keeps the sapling bent is thus in its turn freed, the latter springs forward to its natural position with immense force, and the spear is driven into the body of the animal, or in many cases probably right through it. The slightness of the pressure required to release the spring, and the rapidity and irresistible force with which the spear is impelled across the opening, are admirable. The materials for every part of the engine are taken from the forest around. Even the spear head is made of the *bulo kdsop*, and is exceedingly hard and sharp.

The Bermun tribes also, to capture wild animals, dig pits about twelve feet in depth which they cover over with brushwood.

Wild pigeons, wild fowl, and many other birds which are used for food are caught by means of bird lime of which they possess several very effective kinds, prepared by mixing the *gittás* yielded by different trees.

A considerable number of the trees of the forest afford fruits and seeds which are eaten either in their raw state or after being boiled

or roasted. Amongst these may be mentioned the durián, of which there are several varieties one having fleshless seeds, the rambútan, the r. gáding, r. ubán, r. kasumbá, rámbie, duku. two kinds of máng-is, (mangustan) bánké, bídará, tampuí, márkí, lunkokoyo, kluéng, bokobaká, báhkón, katian, chámínoi, rampínoi, saún, kampong, súndéh, tábán, mirpádí, kés, garop, chábét, raméng, palás, gippú, kadúndong, kulém, sáloi, hukám, tampanoi, pittái, kirdás, blúrú, blátong, mallái, mindáléng, kapás, rídán, ránampás, rámun, jillá, ujol, kirabu, páhét, kichipo, tikaét, kíkái, pinjéng, jiring, kíká buntol, jilibom, máyong, mácháng, kácháng, kirpól, kawé, pakop, tayo, tímámbun, gungáng, dumpa, mirílín, kanséél, pilámpí. Besides these 69 fruit trees, there are doubtless several others the names of which I did not obtain.

Although the ládáng does not yield fruit, the Binuás often plant young duriáns and chámipádás amongst their potatoes and plantains. In after years they revisit the place, and if the trees have grown up and bear fruit, they cut down the jungle around and amongst them, and reclaim their orchard, or *blukár* as they term it from its always returning to a state of low jungle after each annual visit. In the forest I passed many of these blukárs some of which contained duriáns of great size and beauty. The durián groves are frequently at a distance of one or two day's walk and even more from the ládáng, and families find it in such cases more convenient and agreeable to resort to the groves than to have the fruit brought to them. Slight temporary huts are constructed beside the fruit trees, and here they pass the fruit season, which lasts from one to two months, and only return when the last durián has been plucked. In one of these groves, that of Danlék, where I took advantage of the hut to rest and pass the night, there were some smaller huts on the ground which appeared to have been devoted to durián eating, for, while bushels of seeds and husks were heaped around it, very few were seen below the raised hut. The durián feast is the most joyous season of the year, and if the wilder habits of their forefathers still have a poetical charm for the Binuás, as appears to be the case, it would not be easy to picture them in a happier mood than when secluded in such a spot as Danlék, freed for the while from the intrusions and exactions of the Malays, and drawing from the pure waters of the Kaháng, which runs past the grove, and from the surrounding forest, the cheer of the olden time when the Rájá Binuá ruled the land. A full grown durián blukár is the only agricultural property which has any permanent value with them, and while neither houses, gardens, rice fields,

nor in fact any land whatever, has sufficient value to command a price, the durián tree is not unfrequently the subject of sale. One dollar is paid for each of the buttress like projections (*banér*) which the trunk of the durián, like that of several other Malayan trees, throws out on approaching the ground. Those with plain stems are valued at two dollars. Durián groves are sometimes rented for a piece of cloth, or other equivalent of a few dollars, and by the *hádát* the renter is invariably entitled to the produce for two successive seasons. This is probably founded in reason for duriáns have generally alternate light and heavy crops.

The Mintirá give great feasts in the fruit season. A large Bálei having been constructed, and abundance of arrack tampuá (the fermented juice of the fruit of that tree) prepared, the whole country round about is invited. The families under one Bátín are the feast givers. A string of rattan or other substance, having knots to indicate the number of days to the feast, is sent to each of the other Bátíns. The Bátín assembles all the people under him, men, women and children, who repair in their best clothes to the place of the feast. If any Bátín fails to attend, he incurs a fine of 20 rupees. The Pánglíná receives them at the door of the bálei with a cup of arrack tampuá, and takes their spears and other weapons from them. They enter the bálei and dance round it thrice with their arms akimbo, after which they sit down and partake of sirí. The dinner of rice, kledi, wild hog, monkey, fish, coconut &c., is then served. When the dinner is over, the arrack is brought forward, and all freely partake of it, except the children under six or seven years of age. Dancing then commences and is kept up all night and often to the middle of the next day, those who are exhausted lying down to sleep in the bálei, husband and wife together. During the dance they are cheered with the music of the rubáná, gindáng, and suling. The women dance together in the centre of the Bálei each grasping the arm of her neighbour. The men dance round them. One of the men sings or chants a stanza, generally impromptu, and one of the women answers. The dancing consists of a peculiar shuffling and stamping of the feet, and the only difference between that of the men and the women consists in the latter swaying the hips to and fro at every step. Abundance of sugar canes and plantains are hung round the bálei and every one helps himself when he chooses. These feasts are kept up for weeks and even months, and in fact are only finished when the supply of arrack fails. Guests come and go while it lasts. Parties daily repair to the forest in search of

game and fruits. During the *tampui* feast many matches are made, and as little negotiation and less ceremony is needed, it sometimes happens that a pair who had no thought of marriage in the morning, find themselves at night reposing side by side in the chains of wedlock, while the dance and song are kept up beside them.

Hitherto I have dwelt on the industry of the Binuá as limited to the acquisition of the necessities which his own land produces. But the Malays have taught him to covet things which he knows not how to procure save from them. These are cloth, articles of earthenware and iron, such as coarse plates, pots, pans, *pérangs* and axes. Sugar, and coconuts are much prized. His supply of rice often fails. His tobacco is deficient in strength. Although he has both wild and cultivated *síri*, he has neither gambier, betelnut nor lime. The Malays ascend in their canoes laden with a tempting variety of these articles, and the Binuá, unable to resist the desire of calling some of them his own, needs little persuasion to become a debtor of the Malay trader to any amount the latter chooses to impose upon him. The Binuá now finds himself in possession of a few of those things which bring him nearer the Malay, and, at the same time, under an obligation to collect rattans, *kayu gháru*, *chándán*, camphor, dammar, wax, or *tábán* for his creditor. These, with the exception of dammar of which he makes torches, are articles of no value in his own eyes, but in which his forests so abound that, if a more equitable system of exchange were established between him and the Malays, he would not only find himself in possession of a large supply of all those articles which are now sparingly doled out to him, but of a growing capital. The collection of the above commodities does not form a constant or regular employment for any of the Binuá. It is only when there is an unusual demand for any of them in Singapore that the Malays hurry to the interior, and induce the Binuás to engage for a time in procuring a supply of what is in request. At the period of my visit nearly every man in the country was searching for *tábán* (to which the name of *gittáh perchá*, a gum yielded by a different tree, is erroneously applied by Europeans*). This tree is one of the most common in the forest of Johore. It is not found in the alluvial districts; but in undulating or hilly ground, such as that which occupies the centre of the Peninsula between the *Indáu* and *Bátu Páhát*, it occurs frequently, and in some places abundantly. Wherever I penetrated I found that *tábán* collectors had preceded me. I was much struck by the

* It is time that an endeavour should be made to avoid these mistakes. We might with as much truth and propriety called an apple a pear.

remarkable uniformity in size of the full grown *tábáns*. They had all perfectly straight trunks, from 60 to 80 feet in height, and from two to three feet in diameter, the great majority being about two and a half feet. The branches are few and small compared with the *durían*, and have not that tendency to be crooked which adds so much to the beauty of a full grown *durían*.

The *Binuá* after felling the tree make an incision quite round it from which the milk flows. This is repeated at distances of 6 to 18 inches along the whole trunk. The incision has only the breadth of the parang with which it is made, no bark being removed save the rough superficial coating for an inch or two on each side. Many of the trees which had been felled by Malays instead of a single incision had rings of bark of about an inch in breadth cut out. A Malay woodman who had been employed in different places in procuring the *gittá* mentioned that this system is always adopted by the Malays. I notice this in corroboration of what Dr. Oxley has stated on this head in his excellent paper on the *tábán* * because in an article on the substance which appeared about the same time in Chambers' Edinburgh Journal, it is said the bark is stripped off the tree. It is to be feared that the method of obtaining the *gittá* suggested by Dr. Oxley cannot be put in practice. I asked both Malays and *Binuás* in different parts of the country whether they could not procure it without destroying the tree in the same way as they collect *miníá dammer*. But the answer always was that the *tábán* would not run like dammer and many other *gittás* such as the *caoutchouc*. This is probably the fact, because I noticed that on making incisions on growing trees, the milky juice did not flow freely, and rapidly concreted. Its appearance in this state before being boiled is very different from that of the article as imported into Singapore. It has a dry ragged look resembling shreds of bark, and, instead of being dense and tough, is light, and possesses so little cohesion that it is easily torn in pieces. I frequently saw it in this state when newly brought in from the jungle. Various statements were made as to the produce per tree. Considering that the trees are so nearly of one size, it is surprising that the quantity of *tábán* yielded by them differs so much. The extremes mentioned were two cattles and fifty cattles, but it is doubtful whether any thing near the latter quantity is ever obtained. Many *Binuás* who had been engaged for some months in the collection assured me that they had occasionally obtained as much as 18 cattles but never more and that the quantity is commonly nearer 3 to 5 cat-

* *Antep*, 26.

ties than the maximum. I have noticed the *tábán* at some length because an interest attaches to it at present, and because nearly the whole *Binuá* people for some time past have been withdrawn by it from their usual pursuits. They are not under any apprehension that it will be extirpated, and smiled at my ignorance on suggesting the probability of its being so. It is only trees arrived at their full growth, or at least at a very considerable age, that repay the labour of felling them and extracting the *gittá*, and those of all inferior ages which they are compelled to leave, will keep up the race. They are no doubt in so far correct, but the effect of thinning the *tábáns* at the present rate is to reduce the annual supply of seed and young plants. The seeds are eaten by the *Binuá*, but they do not, like the Malays in some countries, as at *Siák*, extract an edible vegetable tallow from them.

It is unnecessary to speak of the modes in which the other articles of traffic yielded by the jungle are procured, because I did not learn that they differed in any respect from those adopted by the Malays. I may here mention however that both people have very superstitious ideas regarding the collection of camphor. While searching for it they abstain from certain kinds of food, eat a little earth and use a kind of artificial language called the *bássá kápor* (camphor language.) This I found to be the same on the *Sídílí*, the *Indáu* and the *Bátu Páhát*. From the subjoined specimens it will be seen that most of the words are formed on the Malayan, and in many cases by merely substituting for the common name one derived from some quality of the object, as "grass fruit" for rice, "far sounding" for gun, "short legged" for hog, "leaves" for hair &c.

THE CAMPHOR LANGUAGE,

Words not Malayan,

Wood	<i>Chué</i>
Stone	<i>cho'ot</i>
Rattan	<i>úrat</i>
Rain	<i>kumélí</i>
River	<i>simplú</i>
Clouds	<i>pacham tatengel</i>
Iron	<i>cháot</i>
Deer	<i>sabalú</i>
Do. <i>kijang</i>	<i>sungong</i>
Hog	<i>sámungko</i>
Tiger	<i>silimua</i>

Dog	dupan, minchu
Elephant	sagántél
Rhinoceros	chuwei jankrát
Bear	chuwei pángpáng
Bee	chuwei dhan
White	pintul
Cold	siáp
Sick	bínto
Tongue	lin
Tooth	pingrép
Head	piningol, tilombong
Heart	mambong mirisít
Belly	mámbong
Cloth	pompoing
Headkerchief	tilombong
Jacket	penyurop
Trowsers	pirso
Spear	pindáhán
Dead	pántus
To fell trees	bantél
Páráng	piranchas
Sword	„ panjang (M.)
Small knife	„ kichio (M.)
Hill	séng
Prahu	lopéh
Betel leaf	krekap
Gambier	assé
Many	kon
Little	sidukon (Malay sidikit.)
To eat	miniko, tiko
To drink	jo'oh
To thirst	bilo
To lase	libam
To sit	biráyal
To lay bye	ámbin
To go	bitro
To sell	piéh
Tired	kabo

Words adapted from the Malay.

Pepper, betel leaf	pimádás	from	pidas
Gambier	kápaít	„	paít

Pinang	pongalet	„	klet
Tobacco	pengáil	„	káfl
Hog	kákípándá	„	kákípendé
Hair	dáun	„	dáun
Eye	pinjingo	„	jingo
Ear	piningar	„	dingar
Nose	penchum	„	chum
Wind	piniop	„	tiup
Hot	piniring	„	pingring
Fire	piningat	„	hángát
Musket	jáubuní	„	jáu buní
„ ball	áná bésan jáubuní	„	„
Sun	tonkat tráng	„	id
Moon	tonkat gláp	„	id
A ruler	piningar	„	dingar
Gold	pimuning	„	kuning
Tin	pimuti	„	putí
Dollar			
Silver			
Star	pinabor	„	tabor
Oar	pingowet	„	uwét
To return	belípat	„	id
kris	tájam séngkat	„	„
Small axe	puting piníngá	„	„
Large id	puting	„	„
Pirda	perámhat	„	„
Cocoanut	buah kukor	„	„
„	„ pulo	„	„
Sugar	pimanís	„	„
Rice	buah rumput	„	„
Paddy	„	„	„
Trowsers	sárong bingkeí	„	„
To buy	muning	„	„

It is believed that if care be not taken to use the *bassa kapor* great difficulty will be experienced in finding camphor trees, and that when found the camphor will not yield itself to the collector. Whoever may have been the originator of this superstition, it is evidently based on the fact that although camphor trees are abundant it very frequently happens that no camphor can be obtained from them. Were it otherwise, said an old Binuá who was singularly free from superstitions of any kind, camphor is so valuable that not a single

full grown tree would be left in the forest. Camphor is not collected by the Bermun tribes, at least on the western side of the Peninsula, and they are unacquainted with the Bássá Kápor.

Having mentioned the labours which the Binuá undertakes to satisfy the demands of his Malayan creditors, this would be the proper place to explain the relation which subsists between the two races. But to understand it thoroughly a further acquaintance with the Binuá is necessary.

The preceding details will render it apparent that the Binuá who is not well supplied with the necessities of life in considerable variety has nothing but his own indolence to blame. As in other communities the condition of individuals varies much. The active and persevering do not grudge their labour to render themselves and their families comfortable. Their houses are comparatively large, neat and carefully constructed. Their *ládángs* are well stocked with vegetables. Their families are clothed. They have their fishing hut and canoes on the river, and their *durián* grove and hut in the forest, and they and all about them are cheerful and even happy. And, yet they never have any other capital than their industry. Others again have not a tithe of their comforts, but are so reconciled to their own indolence and its results, that they are contented with their lot. I soon found that a large house and a sufficient supply of clothing were certain evidences that the head of the family was endowed with a superior measure of intelligence and cheerfulness. Where all are on an equality, accumulated capital wanting, and hardly anything inherited but the common right of taking the produce of the forest, personal advantages are the only ones known. He who has most intellect and activity fares best.

The family of the Binuá is an innocent and happy one, and mutual kindness prevails on every side. The authority of the father is absolute, nor are the sons freed from it even when they have themselves become the heads of families. It is probable that in the more purely nomadic ages the family was less early subject to be broken up, and that the patriarchal system prevailed in its fullest extent. In the house however the husband appears more as an honoured guest than as the lord. The wife has the entire management. A Binuá expressed their ideas on this score figuratively, by saying that the husband was *nakhoda* of the *práuh*, and the wife *nakhoda* of the house. The whole household eat together, the wife sitting near the fire place so as to have the smoking *blángás* and *kwíllí* within her reach. From these she replenishes the plates from time to time. From

the activity, relish and high good humour with which the viands are discussed, it is very apparent that the Binuá is blessed with a strong appetite and looks upon the satisfying of it as the main end of life. The children are in general over fed, and even those who are naturally vivacious seem with difficulty to resist the lethargic influence of cramming with potatoes boiled in hogs grease, a kind of food with which their natural nutriment is eked out from the third or fourth day of their existence. This may be owing to the habit of not weaning children till they are two, three, and sometimes even four years of age. It is not an uncommon spectacle to see the infant of a few weeks and the fat nursling of two years at the breast together. Indulged as the children are during their infancy they no sooner arrive at an age when their labour can be of any use, than they are made to assist their parents in their different employments. The effect of this training is that the young Binuá men and women are highly robust and active compared with the Malays, and capable of enduring with cheerfulness an amount of labour from which the latter would shrink.

The husband cannot beat the wife for any cause, and such is also the *ádát* of the Mintirá and probably of all the other tribes. Should a Mintirá woman offend her husband he complains to her parents who chastise her. She has a reciprocal protection from the parents of the husband. Should the husband commit a serious offence against the wife her relatives complain to the Batín who authorizes them to deal summarily with him. They repair to his house and strip it of every article in it. The goods are carried to the Batín who gives a part to the wife's relatives and apports the remainder between himself and his officers.

The good humour and cheerfulness of the Binuá are amongst their most striking characteristics. Their minds are free from thought and free from care. They are timid, but at the same time perfectly independent, and, while entirely exempt from all slavishness of manner or address and wanting in that peculiar courtesy which distinguishes the Malay, are thoroughly respectful. While in address they are abrupt and open, they have the same natural softness of manner and unwillingness to offend which characterise the uncontaminated Malay. Their plainness and modesty of manner is accompanied by a mental candor and truthfulness which the Malay regards as barbarous simplicity, but which must attract the sympathy and good will of the European in a strong degree, and place them in his estimation far above all the more civilized Asiatic races with whom he is familiar. Amongst the Binuá he feels as if the oppressive moral atmos-

phere which surrounds him elsewhere, were exchanged for a pure and elastic one, in which he can once more breathe freely. The simplicity and openness of their minds, combined with their freedom from vanity, levity, and any overweening pride, communicate a tone of sense to their conversation. In their personal habits, the Binuá are as cleanly as the Malays. Their paucity of dress even gives them an advantage in this respect over the Malay. They scrupulously wash and clean every article of food before cooking it, and reject meat that is at all tainted. The ground below the hut, as with the Malays, is made the receptacle of all the vegetable debris of their cookery and repasts, but it is free from the noisome smell which surrounds the dwellings of the Jákuns. The dogs live in the hut but are cleanly and receive their share of wholesome food. In noticing the personal appearance of the Binuá it was said that the sensual predominated over the intellectual in the expression of their countenances. In their manners they are perfectly modest while familiar and open, and although both sexes at all ages freely associate, I did not observe anything that could have led to the supposition that there was not the strictest reserve amongst the unmarried, and fidelity amongst the married. My enquiries however satisfied me that while in general the women are faithful, adultery is neither unfrequent nor held in sufficient detestation. The Malays assert that it is not difficult to obtain the favour of a Binuá woman, and the Binuás themselves admit that husbands sometimes change their wives and wives their husbands. Divorce is simply a putting away of the wife. Amongst the Mintirá it is a capital crime if it can be proved by witnesses. The sentence of the Batín is carried into execution by the Panglímá. The offenders are laid prostrate in the nearest stream, and their heads are kept under the water by placing a forked stick over their necks and driving the points into the bed. When the husband is satisfied of the wife's infidelity but cannot prove it he may desert her, but he must leave her in possession of the house and lá-dáng and give her ten histas (5 yards) of white cloth, 30 cents and 8 silver rings.* The children remain with the wife. She cannot remarry until the husband takes another wife.

To this imperfect sketch of the character of the Binuá it should be added that although less sensitive in their feelings than the Bermun tribes, whose pride takes offence at the least appearance of a slight, or assumption of control, they would probably shew themselves reserved, unsocial, and even sullen, if they were not treated with

* A Dyak may put away his wife on paying her 20 to 30 dollars (Leyden.)

kindness and respect. They are less distrustful, less changeable, and more robust in their character than the Bermun tribes, who require to be humoured like children, and who, if we fail to do so, easily convince themselves that they are wronged, neglected, or treated with a want of consideration. Like them they are very susceptible to flattery.

It is this excessive sensitiveness both to flattery and slight which seems to supply that psychological link between the aborigines and the Malays which, at the first contemplation of the great difference between them, seems to be wanting. Civilization has deprived the Malay of the openness and simplicity of the Binuá, and hardened him. But, although he has substituted for a total want of manner, one of the most strongly marked manners possessed by any race, his pristine sensitiveness is covered not conquered. It is indeed the secret of much that is peculiar in his social deportment. That art of putting every thing in a pleasing point of view, of softening and concealing the natural asperities of a subject under discussion, of rendering even that which in other hands might wound the self-love of the person addressed, the medium of a compliment,—an art in which the well bred Malay is unsurpassed and which the combined softness, frankness and simple dignity of his manner so well second—is the growth of this very sensitiveness. He soothes and flatters others that he may himself be soothed and flattered. The command over his own passions and feelings which he has obtained, renders courtesy and politeness habitual, but habit has veiled not subdued his Binuá nature, and the sense of wrong, when not relieved by speedy revenge, sometimes preys upon his mind till he is goaded into fury, and moodiness becomes madness. It is another result of the inherency of the Binuá disposition that many Malays, who have not the sustained animal spirits or firmness required by the civilization and position which the race have obtained, are disposed to a degree of melancholy which sometimes becomes sullenness. Let the Binuá be drawn from his seclusion into intercourse with other nations, and his character will be emboldened and hardened by the change in his habits, and unless a more powerful and spiritual religion than that of the Malays elevates him in character as in civilization, we may see him bring the kris to the aid of his spells, and substitute the amok for the tujo. As yet the race sits happy in the ethnic nursery, unconscious of the progress of events which must force it from its child like ignorance and peace and teach it to know the corruption and the strife which nations of larger growth have found in civilization. May they not be

rudely forced into a wider intercourse with the world until christianity has given them something of its kindness, its reverence, and its power.

MARRIAGE, BIRTH, BURIAL.—Betrothment prevails and sometimes takes place at a very early age on the part of the unconscious girl in most if not in all the tribes. Amongst the Besisí a child of a few years old is not unfrequently betrothed to her intended husband who takes her to his house and brings her up.* The Malays declare that when a marriage has been agreed upon amongst the Binuá, the relatives of both parties assemble at the house of the bride, who is placed in a canoe by herself, supplied with a paddle, and sent down the stream. When she has got a start of one or two reaches the bridegroom enters a canoe and gives chase. Should he succeed in overtaking the fair one, she is his wife. If he fail, the match is broken off. As most of the young women have good stout arms, and can well use the paddle, it is to be supposed that love usually unnerves them, and gives the victory to the bridegroom. This account of the marriage customs however I believe to be incorrect, although it may have a foundation in the practise of former days. According to the Binuás the union is arranged by the parents, and the ceremony consists simply in the parties eating from the same plate. After partaking of a repast the relatives of the bridegroom depart, leaving him to pass the night in the bride's house. Next day he carries her home. A small present is sent to the bride's parents previous to the marriage. The Batins and their families send 40 pingans on such occasions, other persons sometimes 20 pingans. If the lady has already known the bonds of matrimony, no ceremony whatever is used. She repairs to the house of her new husband, and installs herself as mistress. Amongst the Bermun tribes the husband either takes up his residence in the house of his wife's parents, or makes one in their ládáng. Most of the Binuás have one wife, but some have two, and there does not appear to be any rule on the subject. The Mintirá are restricted to one wife.

The wife's mother generally acts as midwife, but when absent the husband himself supplies her place. The Mintirá place the wife near the fire in order to drive away the evil spirits who are believed to drink human blood when they can find it. At the birth a string, to which pieces of kunyet, bangli &c. are fastened, is bound round

* Amongst the Dyaks near Banjermasing betrothal frequently takes place at the age of 4 or 6 years.

the neck of the infant as a charm. In the third month of pregnancy the Poyang visits the mother, performs some ceremonies and binds a charm round her waist in order that all may go well with her and the child. On the birth of the first child a feast is generally given by the Bínuás.

Circumcision is not practised. A single incision or slit is made by the Bínuás, but not by the Bermun tribes. A similar custom appears to prevail amongst some of the Dyaks, although a more extraordinary fashion is adopted by other tribes.

Names are sometimes given at birth, but these are changed at the age of puberty. They file the teeth like the Malays and the Bermun tribes.

On the day succeeding a death the body is wrapped in cloth and deposited in a grave dug near the hut, together with some of the clothing of the deceased, and his parang if he possesses one. No ceremony is observed. Above the grave a frame work of wood resembling a box without top or bottom is placed. This is filled with earth, a piece of carved wood is stuck at each end, and frequently the whole is protected by a roof. I did not learn whether, like the Bermun aborigines, they burn a fire above the grave for three or seven nights to prevent the *hantu* or spirit of the deceased from crying in the grave. A still more singular custom of the latter does not appear to be followed. This consists in placing the end of a bambu close to the nose of the corpse, the other end projecting above the grave. This practise is said to be confined to the graves of children who die young, and the reason given for it is that the gases accumulating in the body, and having no outlet, would cause it to swell and burst, and that by some sympathy between it and the body of the living mother, the latter would be affected in the same way.

ADDITIONAL REMARKS ON AGRICULTURE, ARTS &c.—The only kinds of cultivation in which the Bínuás engage have already been noticed. They have no agricultural implements. A stick sharpened at one end serves as a dibble, and the páráng assists in digging roots, cutting sugar cane &c. Paddy is reaped by the hand. Canoes are used for transporting produce, fishing, and visiting, the rivers and their branches serving as highways. The canoes vary in length from eight to fifteen feet and are always hollowed out of one piece of wood. The most durable timber is selected, the *káyu pinák* being preferred as it will last for twenty years and longer. A canoe from 12 to 15 feet in length, which will carry from 400 to 500

gantongs of paddy besides two men to manage it, is valued at 10 to 12 dollars. A canoe of 8 or 9 feet in length is valued at 7 or 8 dollars. The sumpitan is known and is said to be used in some places, but I did not see one during my journey. The bow and arrow are also known but not used. The Malays have not supplied them with articles so costly and dangerous as fire arms. All the Bermun tribes use the sumpitán and poisoned darts. Their sumpitán is a light and neat instrument and differs from that of the Dyak which is a piece of wood bored. That of the Bermun tribes (*timíang*) consists of two bambus seven feet in length one enclosed within the other. The external one, which is merely for strength and ornament, is about three fourths of an inch in diameter, and neatly carved for about a foot at each end and in the middle. To prevent it splitting the fibrous bark of the triáp is bound round about 6 inches of the extremity and a coating of dammar placed over it. The internal tube, which is the proper sumpitan, is of the same length with the case but only three fifths of an inch in diameter. It is composed of two pieces of bambu, united by a piece, 8 inches long, which embraces the ends tightly at the junction. The bambu used (the bulu timíang) is very light and fine grained.

The arrows (*damák*) are small darts made of the stem of the birtam leaf, 10 inches in length, and one sixteenth of an inch in diameter at the base, from which they gradually taper to a very fine and sharp point. The base is inserted into a cone of *káyu tutu* (which is very porous and light) about an inch in length and one third of an inch in diameter at its base. The point of the dart is dipped for about five-sixths of an inch in ípoh. This is made by taking akar ípoh, bátáng ípoh (or kyás), limes, and tuba, which are bruised, boiled and strained. To this arsenic is added. Other substances, such as pachet, jimardés, mállye, and gádong, are also sometimes added. The preparation, called ípoh, has the colour and consistency of chándu. An incision is made round the dart above the ípoh so as to ensure its breaking off and remaining in the wound.

Each dart is kept ready for use in a case of bambu about one fourth of an inch in diameter. Fifty of these cases are laid side by side and united by strings. They are then rolled up and inserted into a case also made of bambu, and which has a neck of jalutong. The same case contains a quantity of bárok (a very light, spungy substance, also used as tinder) extracted from a tree called rúnut. After inserting the dart into the sumpitan a little bárok is introduced. When the Binuá blows into the tube, it is pressed against the base of the

káyu tutu cone, and prevents any of the air escaping between it and the sides. In shooting, the sumpitan is held firm by both hands being tightly clasped over its end, which is inserted into a handle.

WAR is unknown to the Binuá; nor do the Bermun tribes, although really distinct nations having no political and very slight social connection, engage in hostilities with each other. The Malays of Menáŋkábau are rapidly increasing in the portion of the Peninsula occupied by them, and are even spreading over the western or more mountainous division of Páháng, and, from their Chinese like habit of mutual protection and combination, becoming formidable to the Páháng Malays. It would appear that they deal more harshly with the aborigines than the Malays of the Peninsula, for they recently attacked the Mintirá and killed some of their Bátins. This proceeding has driven many Mintirá families from their country, and small colonies have found their way to the British territory behind Malacca, and to other places. The Mintirá say that they found resistance in vain because the Menáŋkábités were armed with muskets, and have learned the use of antidotes to the ípoh poison, so that the slender darts of the sumpitan inflict little injury upon them.

GOVERNMENT.—The boundary between Pahang and Johore intersects the country of the Binuá; the whole of the Anák Indáu, and the lower part of the Simrong being in Páháng, and all the other rivers, including the Mádé, on which they are found appertaining to Johore. The authority of the Bindáhárá and the Tamungong is little more than nominal, the affairs of the Binuá being entirely administered by their own chiefs, each of whom has a definite territorial jurisdiction. The highest in rank and in nominal authority is the Bátin Onastía, the descendent of the ancient Rájá Binuá. On the Indáu below the junction of the Simrong and Anák Indáu resides the Bátin Hámbá Rájá. The Linggo, a branch of the Indáu, is under the Bátin Stía Rájá who is also the great executive officer; his relation to the Bátin Onastía having some resemblance to that between the Malayan Tamungong and Sultan of Johore. The Sungi Sly is subject to the Bátin Singá Déwá. The Simrong in the vicinity of Tanjong Bonko is under the Bátin Stía Bátí, higher up near Gágáu to the Bátin Jokrá, and still nearer its source to Bátin Déwá Kosuná and the Bátin Bantárá. All these, except the two last, are within the Pahang boundary. The Malay local authority,—who, in matters of Government, has a nominal power, and whose re-

lation to the Binuás is properly that of maintainer and regulator of the Malayan monopoly of their trade,—is denominated *To Jinnáng*. The Binuás on the Batu Pahat and its branches are under the *Bintara* or *Mánki Pimánggun* of Boko. The jurisdiction of the Malayan Panghulu of *Bátu Páhát* extends to *Ginting Batu* on the eastern *Simrong*, but, since the water communication became obstructed, the *To Jinnáng* of the *Indáu* has engrossed the trade of the *Johore* portion of the *Simrong*. The *Binut Binuás* are under a *Jokrá* or *Jarokrá* and a *Batin*. Each *Bátin* has absolute authority within his own jurisdiction, but he refers difficult or unusual cases to a council composed of all the *Bátins*, excepting the *Onastía*; and matters in which all the *Binuá* are concerned appertain to the same council. Their deliberations are said to be sometimes very prolonged, particularly in affairs of novelty when their knowledge of the old *háddát* does not afford them any precedents. Offences against property or person are, from the mildness of the people, of very rare occurrence. Crimes of all kinds may be expiated by the payment of fines,* which are invariably imposed, not in coins, of which very few reach their hands, but in coarse Chinese plates or saucers (*pingan*). Adultery is punishable by a fine of from 10 to 20 *pingan* according to circumstances; theft the same; murder, which however seems to be almost unknown, 60 *pingan*. One half of the fine goes to the *Bátin* and the other half to the injured person. If the offender fail to deliver the *pingan* he becomes the slave of the latter. Complaints are enquired into by the *Bátin*, who assembles a number of the elders and consults with them. The *Bátin* is considered to be responsible for any property that is stolen. But he cannot convict the thief without confession or direct evidence of the theft. No regular tax is paid to the *Bátins*. But presents are frequently made to them. On separation of husband and wife by mutual consent the goods which are enjoyed in common are divided into three parts of which the husband takes two and the wife one. On the husband's death one third of the estate goes to daughters and two thirds to sons. On the wife's death the goods in common belong to the husband. If she happens to have a *blukár* it descends to the children, the father being a usufructuary trustee during his life.

Amongst the *Mintirá* the distribution of property on the death of the husband is as follows: The goods which belonged to him before he marriage go to his parents and brothers and sisters. Those ac-

* Such is also the Dyak system, and with them too the fines are very small.

quired during the marriage are divided equally between them and the widow, who, however, is considered as a trustee for the children. The *laddang* is inherited by her. On the death of the wife, the husband surviving, her ante-nuptial goods go to her children, and the goods in common are equally shared by the husband, and the children, who leave their father and live with the nearest female relatives of their deceased mother.

Amongst the Bermun tribes there is a more complete gradation of functionaries than amongst the Binuás. Thus the Mintirá have the Bátin Palimei, who rules in Jimpul, Bátin Chinchang, in Johole, Bátin Puchu at Bántang Muár, Bátin Kíchi at Ulu Muár, and Bátin Jédam on the borders of Pahang and Muár. Each of these Bátíns has under him a Jínnang, a Jukrá or Jorokrá, and an indefinite number of Pánglímas and Ulubálángs. On the death of a Bátin a successor is chosen from amongst the sons of his sisters.

RELIGION AND TRADITIONAL ORIGIN.—So far as I have been able to ascertain, the Bermun tribes have no idea of a Supreme Deity, and I took it for granted that I would find the Binuá equally atheistic. My surprise was therefore great when I discovered that they have a simple, and, to a certain extent, rational theology. They believe in the existence of one God, *PIRMÁN*, who made the world and every thing that is visible, and at whose will all things continue to have their being. *Pirmán* dwells above the sky, and is invisible. Intermediate between *Pirmán* and the human race are the *Jín*,—the most powerful of whom is the *Jín Bumí* or Earth Spirit, who is *Pirmán*'s minister. He dwells on the earth, feeding on the lives of men and of all other living things. It is the *Jín Bumí* who sends all kinds of sickness and causes death; but his power is entirely derived from *Pirmán*. Each species of tree has a *Jín*. The rivers have a spiritual life, but it is that of the *Jín Bumí*, who haunts them with his power. The mountains are also animated by him. He does not, therefore, appear to be entirely a personification of the destructive power of nature, but to be, to some extent, identified with its living force also. There is no religious worship, but to avert death recourse is had in sickness to a *Poyáng*, no other person being supposed to have the right of imploring mercy from *Pirmán*. The *Poyángs* are an order of men combining the functions of priest, physician and sorcerer. The Malays appear to be more superstitious than the Binuás, and to have a greater faith in the efficacy of the supplications of the *Poyángs*, and a greater dread of their superna-

tural power. They are believed not only to be able to cure the most virulent maladies, but to inflict diseases and death,* and the Malays have recourse to them for both purposes. The tigers are subject to them, and every Poyáng has one in constant attendance upon him. When a man falls a victim to a tiger he is supposed to have been sacrificed to the malevolence of some Poyáng whom he has offended. When the aid of a Poyáng is sought to intercede for the life of a sick person, presents are carried to him and he repairs to the house where his patient lies, with his musical *gilondáng*, a long bambu which is suspended in a horizontal position from the roof and struck with small sticks. When night comes on, the Poyáng begins his chants, at the same time wafting a white cloth to and fro, while one of his attendants, often his wife, beats the *gilondáng* and another burns incense (benjamin.) These chants are invocations to *Jéwájéwá*,† who resides in heaven, and through whom alone Pirmán can be approached. They are chanted to different airs the whole night long, and sometimes for three or four nights in succession, until the Poyang announces that he has received medicine to cure the disease or that the deity is inexorable. The more powerful Poyágs do not need to prolong their invocations beyond one or two nights. The explanation given of the object of the invocations, and the mode by which they reach the deity is this. Whenever a person becomes sick, it is believed that Pirmán has ordered the *Jín Bumí* to eat his life (*makan díá puniá níawá*), and that death will certainly ensue unless Pirmán revoke his mandate. But as Pirmán is inaccessible to mortals *Jéwájéwá* must be supplicated to intercede with him. The fumes of the incense rise to the heavenly abode of *Jéwájéwá*, who, pleased with the fragrant smell, is disposed to welcome the spirit or life-breath of the Poyáng which ascends to him in the music of the *gilondáng*. *Jéwájéwá* asks the Poyáng's spirit what his errand is. He informs the minister of heaven of the condition of the sick person, and solicits medicine. If Pirmán pleases, *Jéwájéwá* gives medicine to the Poyáng to cure the disease,—the juice or root of a plant, a flower, &c.‡ None of the Malays with whom I conversed on the subject before entering the country of the *Binuá*, were aware either that the *Binuá* believed

* By the *tuyo*, for a description of which we must refer to our series of papers on the Malays, which will be commenced so soon as room can be found for them.

† Sometimes pronounced *Déwádéwá*.

‡ I intended to have given several of the Poyang invocations, but the length to which this paper has extended renders it necessary to omit them. They will appear either in the journal of my excursion, or in treating of the language.

in a God, or that the Poyang's power was considered to be derived from him and entirely dependent on his pleasure. On the contrary, they declared that they had no religious belief, and that the Poyáangs cured diseases and inflicted calamities by means of spirits which they kept.

The Binuás are much less superstitious than the Malays, and the more sensible among them even doubt whether the Poyáangs of the present day can attain supernatural power or aid. "Not one in a hundred reaches Jéwájéwa," said an old man—"The only one I ever knew to do so was a Poyáng who died when I was young. His spirit was seven days in heaven. I have never had recourse to them in sickness, but always allow diseases to take their course. If Pirmán is determined that a man shall die, he must die. If Pirmán thinks fit to grant him an extension of his life, he must recover."

The Bermun tribes like the Malays attribute the Poyáng's power to his command over spirits which possess and inspire him. The spirits of the rivers, *hantu sungie*, are evil, inflicting diseases and feeding on the *smángat*, or insubstantial body, in which the life of man resides. The spirits of the mountains, *hantu gunong*, are harmless. Every Poyáng has several disciples who attend him when he visits a sick person. A small hut called *Sáwi* is constructed near the house, and in this the incantations are performed, every body being excluded save the Poyáng and his disciples. Incense is burned, and invocations chanted to music until the Poyáng is possessed by the spirit, which answers through his mouth the questions put by the disciples respecting the mode of treating the disease. When a river spirit enters a man and he wastes under its evil influence, the Poyáng has power to exorcise it. The tigers are his slaves. It is somewhat curious that while the *Mintirá* not only believe this, but that tigers never die, they do not scruple to kill and eat the cubs when they find them.

To ascertain whether fever exists, the patient is directed to take *chuping* leaves mixed with lime, rub them together in the hand, and squeeze the juice into a cup. If it hardens the patient is pronounced to have fever. The most common remedy for fever is the *daun dedéngin*, and for fever and ague the *umut s'mámbu*. The *akar bútut* is used in jaundice for young children,—the *akar bálaksiní* for pain in the loins. After child-birth a decoction of the *daun poar* is administered to the child, and *ubat mirian* to the mother such as *mirian ápi*, *m. pádi*, *m. bátu*, and *m. ígí*.

The origin of their country and race was thus related. "The

ground on which we stand is not solid. It is merely the skin of the earth (*kulit bumi*). In ancient times *Pirmán* broke up this skin, so that the world was destroyed and overwhelmed with water. Afterwards he caused *Gunong Lulúmut* with *Chimúndang* and *Béchuák* to rise, and this low land which we inhabit was formed later. These mountains in the south, and *Gunong Ledang* (Mount Ophir) *Gunong Káp* (Mount Kof probably,) *Gunong Tonkat Bangsi*, and *Gunong Tonkat Subang* on the north, give a fixity to the Earth's skin. The earth still depends entirely on these mountains for its steadiness. The *Lulúmut* mountains are the oldest land. The summit of *G. Tonkat Bángsi* is within one foot of the sky; that of *G. Tongkat Subang* is within an earring's length; and that of *G. Káp* is in contact with it. After *Lulúmut* had emerged, a *práu* of *pulái* wood, covered over and without any opening, floated on the waters. In this *Pirmán* had enclosed a man and a woman whom he had made. After the lapse of some time the *práu* was neither directed with or against the current nor driven to and fro. The man and woman, feeling it to rest motionless, nibbled their way through it, stood on the dry ground, and beheld this our world. At first, however, every thing was obscure. There was neither morning nor evening because the sun had not yet been made. When it became light they saw seven *sindúdo* trees, and seven plants of *rumput sámáu*. They then said to each other "In what a condition are we without children or grandchildren!" Some time afterwards the woman became pregnant, not however in her womb, but in the calves of her legs. From the right leg was brought forth a male, and from the left a female, child. Hence it is that the issue of the same womb cannot intermarry. All mankind are the descendants of the two children of the first pair. When men had much increased *Pirmán* looked down upon them with pleasure and reckoned their numbers."

In crossing the *Lingú* in the upper part of the ravine in which it rises, a long flat granitic slab covered with thickly growing moss, called *Bátu Bekáchong*, was pointed out as the first couch of the parents of the human race.

They look upon the *Gunong Lulúmut* group with a superstitious reverence, not only connecting it with the dawn of human life, but regarding it as possessed of animation itself. *Lulúmut* is the husband, *Chimundang* his old wife, and *Bechuák* his young one. At first they lived together in harmony, but one day *Chimundong* in a fit of jealousy cut off *Bechuák's* hair. The young wife retaliated by a kick applied with such force to *Chimundong's* head that it was

forced out of its position. Lulúmut, seeing his mistake, stepped in with his huge body between them, and has ever since kept them separate.

Although the Binuás have a conception of the spirit of man as distinct from the body,—and the belief that the spirit of the Poyáng is carried in music to heaven, while his animate body remains beside them, even shews a high degree of immateriality in their idea of its nature,—they appear to be without any glimmering of faith or hope in its permanent indestructibility, or rather in its retention of individuality. It is fashioned by Pirmán of air, and when the Jin Bumí is commissioned to dissolve its union with the body, it relapses into airy nothing.* All my endeavours to detect the existence, in some shape, of a recognition of a future life were fruitless; and yet I can hardly bring myself to believe that it is entirely wanting, seeing that their religious notions have evidently been derived from other nations who believe in the translation of the soul to another world or its transmigration in the present. It might have been anticipated too, that the respect in which parents are held would have been accompanied by the same reverence for ancestors, which is so common amongst the nations of the Archipelago, and which often displays itself in modes indicative of a belief in their continued existence and endowment with supernatural powers. While in the seaward or Malayan part of the country, I encountered repeated obstructions in examining rocks, for almost every one that was in any way remarkable for size, form, or position, was either the kránát of some ancient worthy, or was indued with the power of working evil. To break off a fragment was impiety in the one case and madness in the other, and a stranger must respect the feelings of those to whose good will and assistance he is indebted. On reaching the Binuá boundary all difficulties of the kind ceased.

The history of the race is involved in darkness. The tradition of the Binuás is certainly sufficiently definite with respect to their origin in the country where they are found, and confirms the conclusion, derived from other considerations, that they immigrated to Johore in very ancient times. It is on their language almost exclusively that any conjecture as to their derivation must be founded. There is no doubt that when the Malays first entered the rivers of the Peninsula (about 600 years ago according to their own histories) they found the country occupied by the Binuá. The descendents of the ancient line of kings are still living on the Indáu. Their origin

* A similar belief is entertained by some of the Dyak tribes,

was supernatural. When Pirmán saw that the land abounded in men he considered it necessary to send a king to rule over them. One day the sound of a human voice was heard to proceed from a bambu. It was split open, and the "Rájáh Binuá" stepped out.

Although recognizing the authority of the Malayan rulers they consider the country as being still their property, and do not tolerate the interference of the Malays in the actual government of the interior.

There can be little doubt that the Binuá have derived their theistic ideas from a Hindu or Islamised race. The basis of their religion and religious practices is Poyángism, in itself a species of milder Schamanism, and this they have united in a very remarkable manner to a mixture of theism and demonism; the one either of Hindu origin, as I incline to think, or borrowed from the Arabs through some partially converted tribe of Malays; and the other having a considerable resemblance to the primitive allied religions of the Dyaks of Borneo on the one side, and the Báltás of Sumatra on the other. The mode in which the three systems have been united so as to be amalgamated into a consistent whole is deserving of consideration. Poyángism remains almost unimpaired, or rather the Poyáng, while assuming the character of priest and to a certain extent abandoning that of wizard, retains in effect his old position. He still commands the demons by incantations and supplications, and their power rather than his own has been subordinated to the Deity. At the same time this idea of an ultimate and supreme creator has not greatly altered their conceptions of the demons. Originally impersonations of the Vital and Destructive forces of Nature,—or the recognition in nature, through the first union of reason and imagination in faith, of a spiritual power which animates, destroys, survives, and perpetually renews the visible forms and forces of the world,—their presence was still allowed to fill the sensible; and Nature herself, both material and spiritual, was subjected to God. That extramundane theism which pervades many higher religions, adapted to the ancient belief, left the demons in the possession of the world, and if it rendered their power derivative instead of self subsisting, it also entirely excluded men from the presence of the Deity. While by his supreme power and omniscience he could control all things, he remained to them a God afar off.

It is in this adaptation of different faiths, rather than in a specific agreement in any details, that the Binuá religion may be compared with that of the Dyaks. The imagination of the latter has been more fertile and daring in proportion to their greater civilization and com-

plexity of ideas. If both were indebted to an Islamised tribe or to Mahomedan missionaries for theism, it is difficult to conjecture how they acquired so much without acquiring more. No Islamite could have taught them that there is no God but one, without adding that Mahomed is his Prophet. If their theism has an Arab source, it is not likely that it resulted from the endeavours of Arabs to convert them, but that, in the early days of Islamism in the Archipelago, some imperfect conception of the new faith was carried to them by half converted natives, and that their minds, or the mind of the Poyáng or Poyáns who introduced the innovation, seized the simple and great idea of God, and rejected or failed to comprehend the scheme of faith with which it is surrounded in the mind of the Mahomedan. What gives some countenance to the surmise that some slightly instructed convert imparted to them that idea of Islamism which had impressed itself on his own mind as transcending all else that it announced, is the name under which the Deity is known. They occasionally unite it to Allah and the words "Firmán Allah" which such a convert might have frequently heard in the mouths of Arabs might readily be changed to "Pirmán Allah," by the common substitution of *p* for *f*, and the latter word fall into disuse from the belief that the first was the essential or principal one. The substitution of a mere incision for circumcision may have been the result of the vague and imperfect comprehension of Islamism and its requisitions, which led them to rest satisfied with a partial compliance with it. At the same time it must be remembered that circumcision or analogous practices existed in the Archipelago anterior to Islamism.

The kind of invention or imagination displayed in the traditions respecting the origin of man, the advent of the Rájáh Binuá, and the domestic strife in the family of the mountain Lulúmút, is similar to that exhibited in traditions found in different parts of Sumatra, Borneo, Celebes, and other islands of the Archipelago. The incidents are different, but the character of the inventions is the same.

The number seven which occurs in the story of the advent of the first human pair, is frequently used in the Dyak superstitions. It also appears in the Báttá religion, and may have been derived from the Hindus.

The Dyaks have a supernatural being named Prámán, who is a slave of Há táálá, a contraction of the Malay (Arabic) Alláh Táála.

If the Pirmán of the Binuá be not derived from the Firmán Alláh of the Malays, it may have had a more ancient Hindu origin, and perhaps, when we consider the numerous and unequivocal

marks of such an origin which the religion of the Báltás and Dyaks bears, (both recognize a supreme God under the same name Diebata, Júbátá, Dewatá,) it is most reasonable to think that the Binuá had acquired the idea of God before the introduction of Mahomedanism, whether the name under which he is known at present be a corrupt Hindu one like Jubata, or a corrupt Mohomedan one like Ha Tzáálá. A Sanskrit name for the supreme being has some resemblance to it,* but that to which I am most inclined to refer it is Pirmál, (which indeed may be considered the same word, for the *l* and *n* are permanently convertible in some, and easily convertible in many languages) a name under which Vishnu is known in southern India, who with Poliar (Ganesha) is followed by the old Hindu colony of Malacca, and whose name is borne by many Hindu immigrants in Singapore, and occurs also in Tamulian history. According to Malayan history, Hindu Malays colonized Singapore and southern Johore in the twelfth century, but there was an earlier Hindu community on the Johore river which was in a flourishing condition in the ninth century. From them the Binuá may have learned to know a Supreme God under the name of Pirmál or Pirmán.† I shall return to this subject when I come to consider the language.

A complete parallel exists between the religions of the Dyaks, Binuás and Báltás, and the elaborate and luxuriant imaginations with which the primary and essential ideas have been overrun by the first, and the simplicity in which they have been retained by the second, are directly referable to the difference in the characters and developments of the two people. The primitive religion of the Archipelago, —a variety of the Schamanism which probably prevailed before Buddhism over all eastern Asia, which lingers around the mosque, and has not entirely faded away in the West in the presence of nearly 2000 years of Christianity,—is still the essential belief of the Dyak, the Binuá and the Báltá. In it they repose a practical faith. By it they seek to defend themselves from diseases and other misfortunes, to secure the ministry of good spirits, and counteract the maleficence of evil ones. It is one of the living springs of their habitual thoughts and actions, and as such remains a prominent link between the extreme south and the north of Eastern Asia.

Amongst the Bermun tribes we recognize a pure Schamanism

* Compare also the modern Bengáli *Param*, supreme, *Paramatma*, God, the Tamil *Para Brahma*, *Paraveran* &c.

† Many sects in Southern India believe that there is one Supreme God, —Vishnu, Narayana, Para Brahma, Pirmal &c,—who is too elevated to attend to the personal requests of mortals.

with its accompanying charms and talismans; a living faith fresh from the ancient days of eastern and middle Asia,—preserving its pristine vigour and simplicity in the nineteenth century, untouched by the Budhistic deluge which has passed over the vast south eastern regions, and sent so many waves to different parts of the Archipelago; and resisting the pressure of the Islamism which surrounds it.

The Poyáng and Páwáng of the Bermun tribes, the Poyáng of the Binuá, the Bliáns of the Dyaks, and the Dáto and the Si Basso of the Battas, are all the Shaman, the Priest—wizard—physician, in different shapes.

IDEAS RESPECTING SOME NATURAL PHENOMENA, DREAD OF SMALL POX AND THE SEA &c.—The Binuás have no written character, and so far as I could learn hardly any indigenous literature. It is probable however that they have many chants or rude songs containing a number of the words of their original language. A few of these were repeated to me. They believe the world to be globular and enclosed in the sky. “The sun and moon” said a Binuá to me one night, “move round the earth, so that now, while we are in darkness, it is light on the other side of the earth where the sun is shining.” Clouds and rain they believe to be produced from the waves of the sea by the action of the wind. A Mintirá declared to me that fogs and clouds were the sweat of the sea at flood tide. When thunder is heard in the north or south, the Binuá say “berbúni poco utará or slátan” the north or south tree is sounding.* The only explanation I could obtain of this was that in the north and south were the extremities of a great beam; that in the north being twenty days journey beyond Boko where there was a great hill from which the north winds issue. They have no division of time save the natural one of the north and south monsoons, each of which they call “sá’táhún hángin,” a wind-year. The Binuá mark time (as the Mintirá also do) by the seasons when paddy is cut, when fruits ripen—“musim páddi,” “musim buáh.” Like the Malays, when pressed for a definite statement on a subject on which their ideas are indefinite, they answer at random. The father of a family told me that his age was eight years. They indicate the progress of the day by the inclination of a stick. Early morning is represented by pointing the stick to the eastern horizon. Placed erect it indicates noon, inclined at an angle of about 45° to the west it corresponds nearly with 3 o’clock, and so on. In this way a guide who is familiar with the path can intimate with-

The Malays use the word *poco* to indicate directions on the horizon.

in an hour the time at which a particular place will be reached, and describe with considerable accuracy the distance of one place along the route from another. Distances exceeding a fraction of a day are reckoned by nights, as in some of the Polynesian islands.* Like the northern tribes they have a great dread of the sea, a feeling arising from exaggerated ideas respecting waves, sea sickness and pirates. They have another natural fear carried to excess—that of small pox. The explanation they give of this is that in former times their tribe was visited and greatly thinned by it, and that a vow was then made that they and their descendants in all time to come should flee from its presence whenever and wherever it appeared. If it should again break out they would abandon the victim and the locality.

The Binuá of the Lingú and Sayong are said to close their rivers by felling trees when they hear that this disease prevails at Johore Lámá, or elsewhere in the country. Vaccination would prove a great boon.

The Mintirá have not, like the Binuá, acquired any of the Malay-ideas respecting the form of the earth, motion of the sun &c. The dark spots in the moon they believe to be a tree, beneath which sits a lunar enemy of man, who is constantly knotting strings together to make nooses to catch us, which he would succeed in doing did not some pitying mice as diligently employ themselves in biting through the string. They do not know how or whence the wind comes, but believe that their incantations cause tempests to subside. They do not with the Malays, Chinese &c., believe that eclipses are caused by a naga endeavouring to swallow the sun or moon, but, like some of the Polynesians, that an evil spirit is devouring or destroying it. Many of them however have a different notion. They believe the sky to be a great pot suspended over the earth by a string. The earth around its foot or edge (*káki lángít*) is constantly sending up sprouts which would join the sky and entirely close it in over us if an old man did not cut and eat them. Should the string break, every thing on the surface of the globe would be crushed. The sun is a woman who is tied by a string which her lord is always pulling. The moon is also a woman named *Kundui* who is married to *Moyáng Birtúng*, the maker of the nooses for men. The stars are the children of the moon. The sun had formerly as many. Fearing however that mankind could not support so much brightness and heat they agreed each to devour her children. The moon however instead of

eating her stars hid them from the sight of the sun, who, believing them to be all devoured, eat up her own. No sooner had she done so than the moon brought her family out of their hiding place. The sun on seeing them was filled with despair and rage, and chased the moon to kill her. This chase has continued ever since, the sun sometimes getting so near the moon as to bite her, which is an eclipse. The moon still hides all her children during the day when her pursuer is near and only brings them out at night when she is distant.

When a Mintirá becomes mad his parents must kill him to prevent his killing other persons. A sharp wooden sword must be used.

Loans are freely given and no pledge is ever taken.

THE RELATION OF THE MALAYS TO THE BINUA.—Every outlet from the country of the Binuá is occupied and guarded by Malays, who, by preventing the free access of strangers and working on the ignorance and fears of the Binuá, keep them imprisoned in the interior. Having effectually locked them up in the jungles, they prey upon them in the most unscrupulous manner. It is probable that if the character of the Binuá had been weaker they would long since have been reduced to direct slavery. But although timid and unwarlike, they have stubborn notions of right and wrong, and any attempt at compulsion is met with an obstinate resistance. The Malay therefore respects the independence and the *hádats* of the Binuá, adapts himself to his notions, and has recourse to craft and cajolery to attain his ends. He treats his victims with a great shew of respect and kindness, and cheats them to their faces in the most courteous and friendly manner. While he dreads the power of the *Poyáangs*, he is well aware at the same time of the influence of his bolder and more energetic and reckless character on the Binuá, and, when occasion requires it, talks of his good will being abused, of the inadequacy and dilatoriness of the return that is being made to him for his advances, and hints that if his debtor does not prove more diligent he will not be able to restrain his anger.

The Binuá of Johore evidently owes to the Malays every departure from his original forest habits. If we deprive him of those articles for which they have purposely infected him with a taste, and those which he has voluntarily sought from the desire to imitate and approximate to the habits of the more civilized appropriators of his country, there will remain hardly any thing to distinguish him from the wilder of the Bermun races. Indeed examples may yet be seen

of men whose indolence prevents them from working up to the high prices which the Malays exact, and who live in the condition of the less advanced Jakúns, their only clothing a *cháwát*, and their food limited, during the greater part of the year, to the produce of their *ládángs* and of the forest.

Compared with the labour which the acquisition of the necessities of life costs them, that which is required to obtain the few luxuries and conveniencies to which they are now habituated, is excessive. Instead of a scanty and irregular supply of clothing and other articles, it should suffice to raise them to a condition of greater plenty and comfort than the Malays themselves have attained, because their industry is greater.

The Malayan Panghulu, Jinnang, or other Head in each river is also the head of the monopoly of trade with the *Binuás*. Strangers who enter the river for trading purposes visit him. He either supplies them from his own store, purchases what they require from the Malays of the river, or allows the traders to do so directly. This system is enforced with more or less strictness according to the character of the Panghulu, but traffic is always to a certain extent carried on without his intervention. Strangers are absolutely prohibited from trading with the *Binuás*.

The Malays of southern Johore, from their long intercourse with other nations, and their piratical habits, which were continued down to very recent times, and are still engrained in many of them, have acquired a peculiar character. They retain much of the manner of the uncorrupted Malay, but their courtesy is seen to lie on the surface, is liable to be converted into a tone of effrontery, and even with the better bred often fails to hide their true disposition. They are greedy, bold, frequently reckless, designing and deceitful. I speak of those whose characters have been developed under circumstances which have given free scope to their activity. Every where numbers are to be met with in whom the piratical or rapacious disposition has not been fostered by opportunity.

The Malays settled on the rivers leading into the country of the *Binuá* may be divided into three classes: The Panghulu and his relatives and dependents; Malays of Johore, frequently from *Tiloh Blángáh*, enjoying some consideration and influence from their means and their connections in Singapore; and miscellaneous settlers who have not this advantage. The trade with the *Binuás* is chiefly in the hands of the first and second classes. They act in concert. The prices at which articles bought and sold are to be

valued is from time to time regulated by the Panghulu, who in this, as in all other matters, consults the principal men of the river. The Panghulu then confers with the Bátíns of the Binuás on the subject, and so manages the discussion as to carry his point. The principle on which the sliding scale of prices is managed, is to maintain a high value for what is sold to the Binuás, and a low one for what is bought from them. When the Binuá rice harvest has been reaped, they are persuaded that rice is every where so plentiful that its price is very small, and that, on the other hand, the price of cloth &c. is high. When their stores are exhausted, the price of rice is raised as much above, as it was formerly depressed below, that of the Singapore market. The result of all the enquiries which I made, and of numerous instances of barter of which I was a witness, is that the Malays sell the goods which they purchase in Singapore, at advances of from 100 to 400 per cent on the prices to them, while they buy *tábán*, camphor, dammar and other produce of the forest at 100 to 400 per cent under the price which they receive for it in Singapore. Thus a voyage of two or three days enables the Malay to double or quintuple the value of goods transferred from Singapore to Johore and from Johore to Singapore. As the trade is almost entirely by barter, the Malays have a double profit on every transaction. But they are not satisfied with having established this vulturine system of trade. They resort to every indirect mode of enhancing their gains that is consistent with the preservation of the trade. They make advances of goods, and as their debtors are unacquainted with writing and accounts, they have little difficulty in exacting more than the stipulated return from those whose memories are not very tenacious; for the return is made in small quantities at a time, as forest produce is collected. But the most certain and constant mode of defrauding the Binuá is in weighing. This is generally done hurriedly, and when a pretence is made of doing it more carefully the beam is brought into a horizontal position, not by the counterpoise of the weights, but by the finger of the Malay. This mode of weighing has now become so prescriptive that although the Binuás generally are aware that the Malays do not weigh fairly, and some have even acquired so much knowledge of the balance (Chinese) as to point out in what the fraud consists, the Malay laughs it off, insists it is all right, and delivers the article to one of his attendants or tosses it into his canoe. To shew more definitely the extent to which the Malays take advantage of the ignorance of the Binuás I add some statements of the prices of articles at different places.

ON THE SIMRONG.

Articles sold to the Binnuás.

		Singapore prices of similar articles.
Tobacco, ..	one catty* .. ₹ 1	13 cents.
Salt, ..	„ gantong .. $18\frac{1}{2}$ cents.	4 „
Coconuts, ..	each .. 4 „	1 to 2 „
Coarse Sarongs, each	₹ 2	50 „
Bugis ,	(inferior), ₹ 5 to 6	₹ 1 to 1. 25 „
White bajus, ..	.. 38 to 75 „	10 „
Headkerchief, ..	.. 58 „	14 „
Coarse red cotton cloth, one yard	$38\frac{1}{2}$ „	10 „
Large plate (coarse), ..	$38\frac{1}{2}$ „	10 „
Small „ „	.. 9 „	4 „
Saucers, ..	.. 3 $\frac{3}{4}$ „	1 „
Cups, ..	.. 9 „	1 „

Articles bought from the Binnuás.

		Singapore price.
Lignum aloes, ..	1 catty 38 cents	66 cts. to ₹ 2 $\frac{1}{4}$
Camphor, ..	„ ₹ 16	„ 30
Dammar, ..	1 picul 35 „	75 „ & upwards
Benjamin (mixed)	„ „ 9	₹ 6 to ₹ 80

ON THE LINGIU.

Articles sold to the Binnuás.

		Singapore price.
Rice (coarse and uncleaned) 5 gant.	₹ 1	15 gant. ₹ 1
Tobacco one catty of abt. 12 tails,	18 cts.	9 to 10 cts.
Salt, ..	13 gant. „ 1	26 „ ₹ 1
1 small blanga, ..	9 „	4 „
1 „ kwalli, ..	$38\frac{1}{2}$ „	15 „
1 large „ ..	77 „	39 „
Parang, ..	$38\frac{1}{2}$ „	11 $\frac{1}{2}$ „
1 coarse knife, ..	20 „	8 „

The intercourse between the Malays and Binnuás for trading purposes is frequent and almost constant. Owing to the comparative narrowness of the Peninsula, and the short distance and want of

* These are the actual prices of articles examined, and the Singapore prices in general are those of articles of the same quality.

mountains between the river heads, the whole country is easily accessible to the Malays, so that there is hardly a kampong that is not visited by them. It is probably a consequence of this continual intercourse that the Binuá language has been almost superseded by the Malayan. That they spoke a distinct language before the Malays occupied their rivers I am quite satisfied, although they have no tradition that they ever did. This conclusion is drawn from the following considerations. Although their knowledge of Malay is very considerable, they speak it in a rude, imperfect manner. They are ignorant of many words which even illiterate Malays know and occasionally use. They often speak ungrammatically, and have adopted phrases such as a foreigner would have recourse to, but which are not idiomatic Malay. They apply some words in a restricted sense, and give too great a latitude to others. An instance which is of constant occurrence will illustrate this. The word "*bodo*" signifies an ignorant person. The Binuá almost invariably use it for "I don't know." One day I heard its meaning still farther stretched. A woman picked up a champada in the forest and called out to her husband "*bodo!*" I asked how a fruit could be a *bodo*, and it was explained that the word meant that the champada "would not do," was too much decayed to be used. Some words of the ancient language still keep their ground, and are more generally heard than the corresponding Malayan words. Others again have hitherto escaped oblivion, but are so seldom used that it is probable they will ere long be obliterated. Their pronunciation of the Malay is exceedingly broad and is also guttural and somewhat nasal.* They speak very slowly and give to every letter its full power. A striking peculiarity is that they speak the Malay as it is written, which proves either that they acquired the language before the fashion was introduced of omitting the final *k* and initial *h* in many words, or that the Malays from whom they originally learned it had not adopted these elisions. Thus they say "*káwmí tááwdák táwlú*" "*túhán hindávk hílr*." All the Malays around them in the Peninsula have dropped or greatly softened the final *k* and initial *h*, but they have no knowledge of the period when the change took place. It was probably gradual and insensible, and must have been subsequent to the introduction of Islamism when the Arabs gave their alphabet to the Malays. I cannot venture to decide how far the nearest Malayan race who retain a similar pronunciation

* The Berimun tribes have a drawling, nasal speech, but not harsh and guttural.

may have been the teachers of the Binuá until I have made further enquiries on the subject.

In offering some introductory remarks to a series of contributions to the ethnography of the Archipelago (in which this hurriedly written paper has accidentally taken precedence,) I took occasion to dwell on the extreme interest of the languages of even the rudest races, and the necessity imposed by our very imperfect knowledge of any, and ignorance of most, of ascertaining these languages before seeking to penetrate the thick darkness which envelopes the early history of this region. The Binuá supply a strong illustration of this necessity. In our immediate vicinity a people are found in the middle of the Johore forest. No one knows how long they have lived there, or whence their forefathers came. They themselves have lost the last vestige of the tradition of their real origin, and it is a mystery to the Malays who must have known them for many centuries. They have absolutely no history that goes farther back than two or three generations. It is the language alone therefore that can enable us to cross the gulph of oblivion that stretches between them and their progenitors. If it cannot afford materials to construct a solid and unbroken bridge, it may at least supply us with stepping stones. At present I offer no observations on the remnants of the original language. Many of the dialects with which it is necessary to compare them are not to be found in books, and the task is one demanding much time and extensive research. Some highly interesting results have already been obtained from a partial comparison, but it would be premature to enter on this until my enquiries are more advanced. While a large proportion of the words differ from those dialects of the Bermun tribes with which I am acquainted, several occur in those foreign languages which have other words in common with the latter. These aboriginal words are in some respects the most valuable discoveries which Johore has afforded. I found no architectural monuments of the Hindu era of the Archipelago, no ancient images or inscriptions, such as, in the north of the Peninsula, in Sumatra, Java and Borneo, excite the enthusiasm and reward the toil of the archeologist. But in the living symbols preserved in the language we are transported to ages still more remote. The primitive people of the Archipelago speak to us in words free from Sanskrit and Arabic taint, which claim for their descendants, now secluded in the central forest of Johore, a brotherhood with many nations which have risen to importance on the busy stage of the eastern world. How much of the ancient history of the Archipelago has been transmitted to us in the

languages of the Binuá and the Bermun tribes, will be considered when the vocabularies which I have been for some time preparing are published

Many of the Malays have Binuá wives, who of course are Islamised. The Binuá on their part are debarred from seeking wives amongst the Malays, and this must always have had considerable influence in checking the natural growth of population. The first Malay adventurers were probably more numerous in males than females. In many places the Chinese tend to absorb the Malays in their turn. The more civilized and wealthy races thin those below them of their women, and necessity drives the latter to make up the loss in some measure at the expence of those still lower. This is one of those fundamental facts of ethnography which should be borne in mind in speculating on the gradual extinction of aboriginal races when comparatively civilized colonies come into contact with them. A considerable proportion of the Malays in the Peninsula behind Malacca are descendents of women of the aboriginal tribes, and the Malays in their turn gave wives to the immigrants from China, so that the greater portion of the Chinese of Malacca have Malayan blood in their veins.

Binuás occasionally embrace Islamism, but although attachment to their old habits and pride in the antiquity of their race, concur with their want of regard for the Malays in rendering them averse to this conversion, the Malays are persuaded that they will ultimately be entirely amalgamated with them. This is a fate which every consideration of humanity and religion urges us to endeavour to avert. As yet the Binuá preserve much of their natural openness and honesty of character, and their whole disposition is such as to give assurance that they would prove willing recipients of Christianity, were it presented to them in its purity and simplicity. Were an intelligent, and kindly missionary to settle amongst them, the superiority of his character to that of the Malays would speedily gain for him the influence and authority of a father. A great improvement in their condition might be brought about by merely placing their intercourse with the Malays upon a just footing, to accomplish which the influence of the Singapore government and the authority of the Tamúgong would, it may be anticipated, be readily accorded. The latter does not derive any advantages from the system of rapine which prevails in all his principal rivers. At present while, in many places, his subjects are procuring *tábán* at prices of $2\frac{1}{2}$ or 3 dollars per picul, he pays them rates varying from 7 to 10 dollars. Innovations

would of course need to be made gradually and with prudence; and to overcome the direct and indirect opposition which might be expected from the Malays great temper and firmness would be requisite. But with the sincere concurrence of the Tamúngong all difficulties would in time be overcome, and he would derive so much advantage from the increased prosperity of the most laborious class of his subjects that interest alone would prompt him to continue the good work when once begun. Johore is now the only Malayan country over which we have a direct and almost absolute influence, and we derive little credit from the fact that while the small Settlements which we have acquired on its coast, Singapore and Malacca, absorb nearly all its trade, we have never made the least effort to improve the condition of its people.* What its capabilities are I shall have an opportunity of shewing when I enter upon its geography. In the mean time I hope that the facts contained in this paper may awaken some interest in its aboriginal inhabitants, and that, from one quarter or another, protection and sympathy, which their ignorance prevents them from seeking, may come to them.

In the course of this paper I have had occasion to compare or contrast the aborigines of the south of the Peninsula with the Malays, the Báltás and the Dyáks. In comparing their language with that of the aboriginal tribes of Sumatra, with the Javanese, Sundanese, Bawean, and Madurese, with the known Dyak languages and the peculiar Malay of Borneo, and with the languages of the northern boundary of this circle, the Peninsulas of Eastern Asia,—where the whole originated and where many words are still found in common—I shall have an opportunity of entering into a more critical examination of all the ethnological affinities of these people than would be suited to the nature of this paper even if I were already in possession of all the requisite materials. Here I will only remark that the character of the Binuá, the Dyak and the Báltá is essentially the same, and may still be recognized in the Malay.

The Binuá has less developement of intellect, and less corruption of the passions. Natural influences are with them greater than artificial. Every individual and every family lives more in the pure and fresh presence of nature than of men. Detached in family groups

† The success which recently crowned Colonel Butterworth's endeavours to induce the Tamungong to send his sons to the Revd. Mr. Keasberry's school shews how much might have been accomplished ere now if all the successors of Sir T. S. Raffles had recognized the improvement of the natives of the country, and the advancement of knowledge, as objects worthy of the effective aid of government.

in the forest, Malayan corruption, which would long ago have reduced them to its own dye if it could have operated on them in village masses, has found no assailable point. The absoluteness of the influence of the family, and of simple and solitary pursuits, has also prevented the internal growth of vices. There is no outward influence to counteract it. Society in its turn contains no institution or principle that can interrupt its harmony. Their character and habits afford no room for any disturbance of the equality that reigns throughout the whole community. Hence there is no appreciable social strife, or ambition.

The Báltás and Dyaks have long outgrown the close pressure of nature, and agglomerated into social masses in which the passions have fermented, and the intellect and imagination been quickened. But these social masses have been small; nature has not been driven back on all sides as in the plains and slopes of Menangkabau. Hence both the Battá and most of the Dyak still preserve the Binuá character at bottom; but, unlike the Binuá, they have elaborated their superstitions and their social habits, and have acquired some vicious propensities, such as gambling, which the Báltás carry to a mad excess, and the unnatural customs of head hunting and man eating, which are only more startling illustrations of the universal truth, that, without a religion like Christianity, which does not stop at precepts and doctrines but spiritualizes the very springs of action and fills the soul with the divine idea of the world, virtues and vices, and particularly those which are national, may dwell together in harmony. It is undeniable that the Báltás as a people have a greater prevalence of social virtues than most European nations. Truth, honesty, hospitality, benevolence, chastity, absence of private crimes, co-exist with cannibalism.

The Binuá nature, as we have already had occasion to notice, is also very recognizable in the Malays, although the pride and pretension engrafted upon it by Islamism, the bold and active part which they have played in the modern history of the Archipelago, and the influence of courts formed on the Mahomedan model, have obliterated much of its simplicity and all its artlessness.

PHYSICAL CHARACTERISTICS OF THE MINTIRÁ.

Having failed in my attempt to bring one of the Bínúá with me to Singapore I am unable to offer any portraits of them. The full length figures of a man and woman in the accompanying lithograph are two of a party of Mintirá from Gunong Bermun who lately settled at Rumbíáh near Malacca, and were induced to visit me in Singapore,—probably the first voyage that any of their race have undertaken for many centuries. In a future paper I shall give some account of the impressions made on them by the voyage, and their behaviour while in Singapore, as well as several particulars which could not be introduced into the preceding paper. Nos. 1, 2, 3, 4, and 5 in the lithograph of eight heads are also Mintirás, the two last being females. The remarks respecting the Bínúá physiognomy (ante p. 249—252) are, on the whole, applicable to the Mintirá. The full length figures fail in doing justice to the originals. The face of the woman in particular although grave is not dull and sullen.* Some of the profiles give a good idea of the originals. The second is the least successful.† It is that of the most intelligent of the party. His features are remarkably well and sharply cut, although the head preserves the general Bínúá characteristics. The forehead is fine, but as usual the cheek bones swell out laterally beyond it. The faces of all the Mintirá seem to be formed of two parts separated by a line across the eyes. The upper is the forehead, rising from a base considerably narrower than the line connecting the zygomatic projections. The great bulk of the lower part is horizontally oblong, the external lines having a slight inclination inwards from the zygomatic arches to the angles of the lower jaw opposite the mouth, after which they converge towards the chin which forms an angle much more obtuse than in the Biduandá Kallang. This form is given by the lower jaw not proceeding directly to the ear but form-

* While it thus rather fails in the expression, the features are otherwise drawn with great accuracy. With reference to the whole of these lithographs I have to express my best thanks to Mr. Wiber for the rapidity with which he drew and lithographed them at the last moment. If the haste with which they have been produced depreciates their value, he is not responsible for it.

† As the head is a remarkable one and very unlike any Malay head I ever observed, I shall endeavour to present an accurate drawing of it hereafter.

ing an angle below it. The vertical elongation of the upper part of the face is a striking feature. If a line be drawn from the angle of the lower jaw through the lateral projection of the zygomatic arch to the top of the forehead, the portion above the projection greatly exceeds that below it. Thus in Párut's face the one is $3\frac{1}{2}$ and the other $2\frac{1}{2}$ inches, in Talá's face 4 and $2\frac{6}{8}$ inches, while in one of the Biduanda Kallang, Saweng, the proportions are reversed, the upper part being $2\frac{1}{2}$ and the lower 3 in. In Noneng the former is $3\frac{1}{2}$ and the latter 3 in. The nose in all is small and slightly turned up, and the mouth large. The hair falls over the shoulders, and, with one of the men, in a profusion of curls.

Figs. 1 and 3 are not sufficiently prognathous.

The toes of the Mintirá like those of all the tribes of the interior with which I have any acquaintance, are spreading, so that the foot is very broad anteriorly in proportion to its length.

Other characteristics may be gathered from an inspection of the annexed table p. 305.

THE ORANG SABIMBA OF THE EXTREMITY OF THE MALAY PENINSULA.

Allusion having been made in the preceding paper to the insular tribe who were recently transferred from the island of Battam to the southern coast of Johore by the Tamungong, and also to the race who frequent the creeks of the same coast, a short comparison of them with the Binaú may not be without interest.

Being desirous of assembling individuals of as many of the wild tribes as possible under one roof, so as to compare them carefully with each other and with the Binaú, while my impressions of the latter remained fresh, the honorable the Governor, with his wonted readiness to encourage and aid enquiries of the kind, procured me through the Tamungong a visit from two of the Sabimba and four of the Beduandá Kallang.

The Sabimba previous to their exportation to Johore by the Tamungong inhabited that portion of the island of Battam which is traversed by the stream called the Sungie Sabimba and its feeders.

They are entirely a forest people, having no ladangs or cultivation of any kind, and no boats. They are consequently barbar-

ous in their condition compared with the Binua. According to their own traditions, however, they have not always been of habits so rude. They declare that they are of Malayan race, and give the following account of their advent in Battam. Their forefathers lived in the land of the Bugis, and were of agricultural and maritime habits like other Malays. In the course of a voyage from Celebes to the westward, a vessel containing a party of them and a Rájá Bugis, was lost off the coast of Battám. Some of them reached the shore, and, having no means of returning to their native country, remained on the island. After a few generations their numbers had increased, and they lived in comfort making ladangs, and gradually regaining the condition in which their shipwrecked ancestors had lived in their native land. At this stage they unfortunately attracted the notice of pirates and their kampongs were ravaged. New ladangs and houses were made, but again they were visited by pirates. They removed to another locality, but their merciless and persevering assailants found them, and continued to repeat their attacks every few years. At last when their kampongs were destroyed for the seventh time, they gave themselves up to despair, abandoned their ancient habits, and sought safety by wandering in the forest and restricting themselves to the materials of food which it spontaneously yields. To prevent any longing to return to the comforts of civilization from again exposing them to plunder, slavery, or death, the whole tribe made a vow that they should never again form ladangs, live a settled life, or even eat the domestic fowl, the crowing of the cock having sometimes betrayed their dwellings to the pirates.

Whatever be the foundation of this tradition, it expresses their present condition. They plant no vegetables of any kind, but use the leaves, roots and fruits which the forest affords, such as the akar kaluna, a. simápo, a. ajas, a. ánprio, a. katápá, the unut nibong, u. báyás, u. sirdáng, u. lángkap, the buah tamidak, b. bálók, b. tampui, b. máneling, b. páncho, b. kábes, b. ridan, b. kadumpa, b. rânjas, b. mángos után, b. kaladáng, b. pássál, b. durian, b. lakup, b. pakalá, b. toré. They eat the flesh of every forest animal which they can kill, and when occasionally brought in contact with more civilized people, shew no objection to any kind of food save the fowl which they scrupulously avoid. The wild

animals used are the hog, palando, korá, lutong, musáng, tupái kubong, bewak, málok, pirgam, kalongkeng, koko, tóng, punai, the oil of snakes, and many kinds of fish. The kijang, rusa, elephant, and bear are not found in Battam. Flesh of all kinds is cooked by the men, vegetables by the women. They use a Dyak sumpitan which is also armed with a spear head after the manner of the musket and bayonet.* It is curious that this weapon has been imported for them from time immemorial, and that they have not acquired the art of forming sumpitans of bambus like the Bermúns. The Bornean sumpitan is artificially bored.

They make rude temporary huts in the forest with the floors on the ground, and never remain long at the same spot.

Before marriage the bridegroom prepares a hut of his own to which he carries the bride on the day of marriage from the house of the Batin where they are united. 12 histas of white cloth, and some siri and pináng are delivered by the bridegroom into the Batin's hands for the bride's parents.

The children of brothers cannot intermarry, but those of sisters and of a brother and sister may.

When one of the family dies, the body is washed, wrapped in cloth and buried in a grave, an excavation being made into one side to receive it. Above the grave they place rice, a pot, an axe, a hatchet, a knife, siri and pinang, praying the deceased not to call on them or require anything from them in future. A fire is kindled at the side. On the third and seventh days they visit the grave, and after a month abandon the house and seek a new locality for their residence. The goods descend to sons. Adultery is punished by a fine of 1,000 rattans, seduction of a virgin by being compelled to marry her and give the customary present to her parents.

Their ancestors were warned in dreams that if the race bathed tempests would visit them. Hence they abstain as religiously from bathing as they do from eating the fowl. The only punishment which the Malays threaten them with, or ever inflict, is to duck them in water, of which they have so great a horror that they say they would prefer being killed at once.

Dreams are greatly dreaded, and, if bad, keep the dreamer

* They only use the ipoh to poison the darts. They take the bark of the tree (which is a common one) bruize it, and boil it, till the juice is of the consistence of chandu (opium prepared for smoking.)

in a state of uneasiness for some days. A Sabimba of old dreamt that he would be killed by a tiger, and within two days his dream was fulfilled.

The colony at present living towards the head of the Sungie Támarau (which falls into the Salat Támarau or old Strait of Singapore opposite the most northerly point of the island) consists of 25 men, 30 women, and 15 children. They are serfs of the Tamungong being under a Malay Jennang who employs them in collecting tábàn, dammar, rattans, kayu gharu, ebony, chándán and wax. In return he gives them rice, sago, and very rarely a little cloth. Other Malays are also allowed to carry on a little trade by barter with them,* by which means they are supplied with axes, hatchets, earthenware, cooking pots, iron pans, salt, chilis, and tobacco.

To describe them further would be scarcely anything more than a succession of negatives. Thus they do not circumcise or incise, they do not file the teeth, they do not perforate the lobe of the ear. They have no religion, no hantus or other supernatural beings that have names, hardly any medicines, no Poyángs. The husband alone assists at births. To aid parturition a decoction of dáun Saluso is administered, and they also samboran like the Malays. A fire is kindled near the mother to scare away evil spirits. A decoction of the branch of the Mankurus is also given to the mother. The umbilical cord is cut with a *sambilu rotán* (or rattan knife) and kunyet powder applied. On the third day the mother bathes in water mixed with a decoction of the *dáun kamáso* followed by an application of lime juice. She then resumes her wandering in the jungle in search of food, her child being tied closely under her arm with its mouth to the breast. It does not receive a name till it is a few months old. The children are never beaten.

I have only seen two individuals of the race. One is an old man and the other a middle aged woman. Both are at once seen to belong to a different race from the Bínua. The head in particular is much larger, and formed on a different type. The face is very long, arising from the length and inclination of the lower jaws. The lips

* Except in tabán, which they cannot dispose of to others under pain of a ducking.

are firm but thick. The jaws a little prognathous, but the firmness of the lips diminishes the effect. When viewed in profile the features seem to be arranged on a curve.* The man has a beard of straggling and coarse white hairs, which is stronger than that which Malays generally possess who allow the beard to grow. Each shoulder has a band of similar hair, but that upon his person generally is not remarkable.

His shoulders are narrow and arms fleshless, approaching in this respect to the Australians. The woman's face is very broad across the cheek bones, so as to present the most Mangolian of all the heads.

Both individuals at first seemed without ideas, and averse to conversation. The man when questioned answered, and to a certain extent overcame his reserve. In the evening of the second day he became very loquacious under the influence of a glass of cherry brandy, and has since been communicative. The woman sits with her eyes fixed on the ground, and her face wearing an expression of hopeless stupidity. No smile, no glance or motion betraying the presence of thought or feeling, has once lighted up her settled look of dulness. Her person is loaded with flabby fat, and clothed from the waist to the knees with a dirty sarong. A rag scantily covers her bosom. The curved gittá tábán handle of a páráng, which projects above the folds of her sarong tells the occupation from which the poor woman has been summoned.

I reserve my remarks on the language of this tribe and of the Beduandá Kállang.

THE BIDUANDA KALLANG OF THE RIVER PULAI IN JOHORE.

The Pulái lies farthest to the west of all the rivers that fall in to the Straits of Singapore from the Peninsula. It derives some geographical interest from its rising in Gunong Pulái, the most southerly mountain, and having its embouchure near Tánjong Bouro the most southerly point, of Asia.

* In the lithograph, (profile No. 8) which is very good in other respects, the lips are not sufficiently thick, the general curve too slight, and the lower part of the face not sufficiently prominent.

Before the British obtained possession of Singapore, the Kálláng, which may be said to bound the present suburbs on the east, was the immemorial haunt of a small tribe who lived in boats, but avoided the sea. Upon the cession of Singapore, they were removed by the Tamungong to the Pulái where they have remained ever since. They formerly consisted of about 100 families, occupying as many boats, but the ravages of the small pox have reduced the number to eight. They are fishermen and foresters, dividing their time between the two pursuits. They have small fishing stakes near the mouth of the river, which some of them visit in the morning. But they have so much dread of the sea that they do not venture to quit the river, and constantly proceed towards the interior before night. When a strong breeze rises they drag their boats ashore. They never make huts. They collect forest produce for one of the Tamungong's Malays who has charge of them. They have a *bo-mo* or physician who sings to summon the *hantus* to give them medicine.

They do not cultivate any plants, their ancestors having made a vow for the race against forming *ládángs*, and they believe that if any of them were to break it death would be the consequence.

At child birth the mother drinks a decoction of the leaves of the *bákáu* that have fallen from the trees and float on the water, and the child a little of the expressed juice of the *buáh káluna*. For any swelling they bruise leaves of the *báro* and rub them over the part swollen. Cuts or wounds they rub with the juice of the *akar lálé urát*. For pain in the bowels they use ginger. For head ache, they drink the juice of the *káyu kípíèlu ángín*.

Previous to marriage the bridegroom provides himself with a boat of his own.

Corpses are wrapped in mats and buried. Upon the grave they place a cup of woman's milk, one of rice and one of water, and entreat the deceased not to seek anything more from them.

Polygamy and adultery are unknown. Widowers and widows do not marry a second time.

Persons of the same family cannot intermarry however remote the degree. But the traces of relationship must soon be lost.

Specimens of the rude chants will be given in speaking of the language.

Two of the men, Sawéng and Sáo, (fig. 6 is the profile of Sawéng) have very remarkable heads which depart greatly from the Binuá, Mintirá and Malay. The forehead is broader than the cheek bones, so as to give the face in front something of the shape of a pear. But in contrast with this unusual breadth is its extreme narrowness, the hair approaching to within less than 2 inches of the eyebrows.* The second remarkable characteristic consists in the entire absence of the prognathous form. The lower jaw indeed advances well so as to form a rather sharp chin, but instead of the upper jaw advancing, the whole face from the chin to the base of the brow appears as if it were flattened, so that when viewed in profile all the features seem to be placed on a straight line from which the prominent parts rise very slightly. The lips are comparatively thin, firm and not open, and the mouth small, presenting a great contrast to the gross, loose lips of the Mintirá. The under lip is slightly thrust out or pouting. The whole mouth instead of being sensual has a singular expression of good temper and even of serenity and sweetness. The eyebrows are horizontal so as to form parts of a straight line. The upper part of the body deviates no less strikingly from the ordinary Binua standard, the shoulders being wide and the waist comparatively narrow. The smallness of the head in proportion to the width of the shoulders is one of the marked peculiarities of the figures. The face in its peculiar flatness resembles the profile of a Siamese in the plate of eight national portraits contained in the second volume of Mr. Crawford's Embassy to Siam and Cochin China, and the extent to which the hair advances on the forehead is another Siamese characteristic. The brow however is not a slight curve as in the profile of the Siamese, but advances from the face at a sharp angle. The line of the lower jaw also instead of extending back in a horizontal line and then rising nearly at a right angle to the ear, proceeds in a direct slightly curved line to the ear as in the second profile in Mr. Crawford's plate, that of a Chong.

Another of the Biduanda Kallang, Nanéng, (a remarkably strong built and powerful man) has the pyramidal or lozenge face in perfection, the cheek bones being more prominent than in most Binuá.

* The lithographed profile of Saweng gives too great a height to the forehead.

He differs from them and the Mintirá in the absence of the prognathous form of the lower part of the face, in its being deeper, and in the angle of the chin, or that formed by lines drawn from it to the outward extremities of the cheek bones, being much more acute. This arises from the greater length of the lower jaw and its proceeding directly in a sloping or slightly curved line from the ear to the chin. The general character of his face is between the Malay and Siamese, but perhaps nearer the latter. The expression is much more Siamese than Malay.

All the faces are less lively, but at the same time less indolent, than those of the Mintirá, the general expression quiet, contented, pleasant, non-obtrusive, and for the rest blank. The outlines are less rounded, the skin harsher, and the eye more dull. The features of Sáveng and Sango have a pinched or compressed look. I never saw any Malay who resembled them.

The feet of the Kálláng are straighter and narrower than the Binuá, and the toes parallel instead of spreading.

THE ORANG SLETAR.

This race are closely allied to the Biduanda Kálláng, (both indeed appear to be branches of one tribe, *the aborigines of Singapore*, and both derive their names from Singapore rivers) but though, like them they do not venture to sea, they are not confined to one river, but frequent most of the rivers and creeks of Johore that have their mouths in the old Strait and in the wide estuary of the Johore River. I have never examined them closely. The following extract from my Journal relates to a small party which I encountered last year in the course of a geological exploration of the Johore estuary and will convey some idea of the singularly secluded lives which many of them lead. Others are less solitary and barbarous.

"I now pulled across to the south eastern corner of the estuary and entered a broad winding creek called Trús Báú. For some time nothing is visible beyond the mangrove walls of the reaches which expand or contract as we proceed. As we went deeper and deeper into this lonely creek, the feeling of its wildness and seclusion grew stronger. At Tanjong Búaye we had left the last trace of cultivation behind, and the uniformity of the winding shores

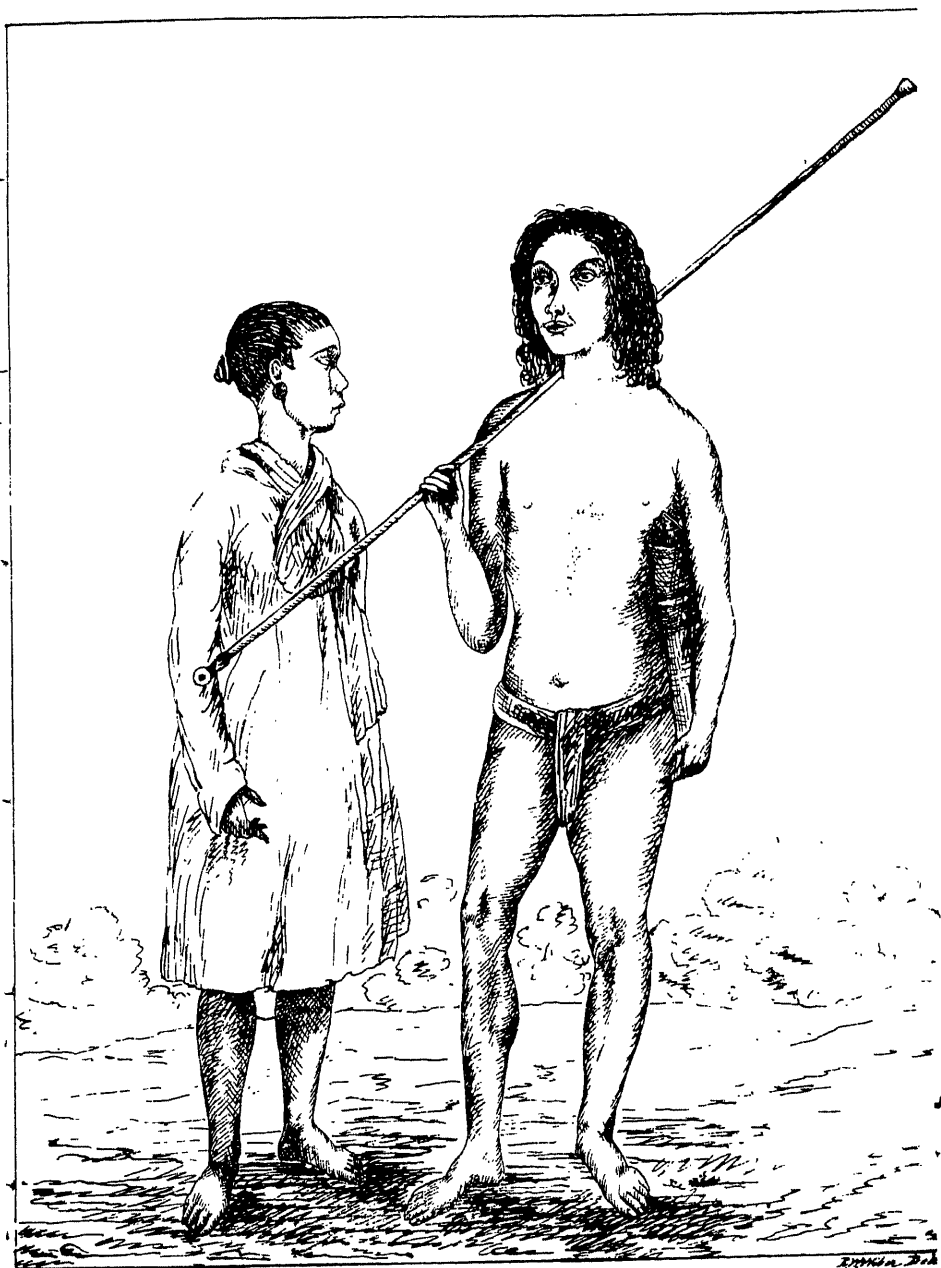
of the creek, the smoothness of its water, the stillness that prevailed, the absolute want of all living things and all signs and sounds of life, and the impression that from its situation it was not frequented by boats, gave to it a character of the most perfect solitude. Whilst enjoying the full influence of this character, a bend of the creek suddenly broke the spell by disclosing another reach in which were two boats. It was soon renewed and redoubled as we neared them and the steersman declared they were wild men, and cautioned us to avoid doing anything to frighten them. They were fit accompaniments of such a scene. When they saw us they paddled hastily to the side and apparently sought to screen themselves from view by the mangroves, but we were too close upon them to admit of their doing so. As the evening was falling and I was desirous of reaching the foot of Gunong Baú by daylight, we did not stop, and I had therefore no opportunity of examining or conversing with them. Their appearance however is too wild and remarkable to require more than a moment's look to impress itself on the mind. One expression was strongly stamped on their countenances, that of a dull blank stupidity almost idiotical in its excess animated for the time by the startled and frightened look with which they gazed at us. Their hair hung over their shoulders in a tangled mass of a dry dirty red. In each boat, a woman naked to below the waist, held the helm oar, and a man paddled. There were also two lads; and the same idiotical expression was so deeply stamped on the face of each, as at once to reveal a life so miserably contracted as to exclude all that social expansiveness of individual nature which produces a free growth of mind and a wide range of ideas. Compared with these wild denizens of loneiy creeks my unlettered and ignorant Malays and Báwíáns assumed a high rank in the scale of humanity. The contrast between them and the Malay in particular, a native of Johore like themselves, was so marked as to render it in a high degree difficult to account for the difference if both are of the same stock. The Malay bold, sociable, talkative, intelligent, and even possessing a certain peculiar refinement and sense of honour. The orang utan, although speaking the same language, idiotically stupid and in habits liker wild animals than men, shunning all intercourse that can possibly be avoided with the rest of mankind, and apparently having no social feeling amongst

themselves save that which serves to keep the family together.

Since the above papers were sent to press my friend Mr. Thomson has come in from the Old Strait, where he met several of the oráng Sletar and oráng Sabimbá. Some of the results of his observations, I am happy to be able to promise, will be given in a supplementary number, and the ywill be illustrated by lithographs of several heads.

A comparison of the measurements contained in the following table will show many facts which could not have been expressed so concisely in the three preceding papers.

	Height		
	ft.	inch.	
MINTIRA.			
Pawung,	5	6½	From highest part of anterior Fontanelle of skull to orifice of ear.
Patur,	4	6	
Tala,	4	6½	From highest point of occipital protuberance to orifice of ear.
Silasi, woman	4	6	
Bachon, id.	4	11	Between orifices of ear measured over eyebrows.
BIDUANDA			
KALLANG.			
Saweng,	5	6	Between orifices of ears measured vertically across middle of parietal bones.
Noueng,	5	6½	
Sungu,	5	6½	
SAMIBA.			
Pahmat,	4	7	Circumference of the head measured round the forehead and occipital protuberance.
	11	6	Id. round the lower jaw (chin) & highest point of occipital protuberance
			Breadth between the most projecting points of the zygomatic arches measured over face.
			Straight line connecting id.
			Breadth of brow at base.
			Height of id.
			Length of face from chin to highest part of brow.
			Chin to orifice of ear.
			Facial angle.
			Angle of chin formed by lower jaw & line drawn from chin to glabella.
			Breadth in front between the shoulders.
			Circumference below the shoulders.
			Id. at waist.
			Length of arm to wrist.
			Id. of hand.
			Breadth of pelvis in front measured between the anterior, superior spinous processes of the ilium.
			Length of limbs.
			Id. of femur from the great trochanter of femur to the external condyle of fibula.
			Id. of foot.
			Breadth across toes.





N^o 1.



N^o 2.



N^o 7.



N^o 5.



N^o 6.



N^o 4.



N^o 3.



N^o 5.

N^{os} 1, 2, 3, 4, 5 Orang Mintiré.
 " 6 and 7; Orang Biduanda Kallang.
 " 8. Orang Sabimba.

McNish del.

Lith. at R. S. S. Press, Singapore



Woman and Man of the Mintira Tribe



Men of the same Tribe

THE SUPERSTITIONS OF THE MINTIRA,

WITH SOME ADDITIONAL REMARKS ON THEIR CUSTOMS, &c.

All diseases are caused either by spirits or by the spells of men. Amongst the spirits of disease—*Hántu Pinyákit*,—the most powerful are the *Hántu Hamoran*, *Hántu Bára Sísip* and *Hántu Bára Terkilir*. These Hántus cause the greatest mortality. The *Hántu Katumbohan* (spirit of the small pox) is held in such dread that the Mintirá evince a repugnance to mention its name. The *Hántu Kambong* haunts the abodes of men to afflict them with pains in the belly and head. The *Pintákit Punán* (Malay *Kampunán*) causes pains and accidents to persons who have had a desire to eat of any particular article of food, and have not been able to get it. The *Hántu Saburo*, or Hunter Spirit, dwells in lakes and pools in rivers. His body is black, and he has three dogs named Sokom, or Black-mouth. When one of them passes a hut, the inmates make a great noise by beating pieces of wood &c. to frighten him away, and the children are caught up and held tightly by the older people.* The *Hántu Sá-buro* chases men in the forest by his dogs, and, if they are run down, he drinks their blood. At the upper extremity (*ulu*) of every stream dwells the *Hántu Tingí*. In the ground lives the *Hántu Kamáng* who causes inflammation and swellings in the hands and feet, so as to deprive his victims of the power of locomotion. The *Hántu Dongdong* resides in caves and crevices in rocks. He kills dogs and wild hogs with the sumpitan, and drinks their blood. The *Hántu Penyá-din* is a water demon, with the head of a dog and the mouth of an alligator. He sucks blood from the thumbs and big toes of men, and death ensues. When he leaves his watery abode, he wanders about incessantly in search of food, until satiated, when he returns home. The *Hántu Káyu* (wood demons) frequent every species of tree, and afflict men with diseases. Some trees are noted for the malignity of their demons. The *Hántu Dágo* haunts graves, and assumes the

* The Malays have a similar belief. But with them Sokom is preceded by a bird named Bérébéré. Whenever it is seen near a house as much noise as possible is made.

forms of deer. When any one passes, he calls them. When a person is wounded, the *Hántu Páí* fastens on the wound and sucks the blood. This is the cause of the blood flowing. Amongst the other hántus are the *Hántu Chiká* (who produces more excruciating pains in the abdomen than the *Hántu Kambong*) the *Hántu Jimoí*, *Hántu Sulár*, and *Hántu Swén*. To enumerate the remainder of the Hántus would be merely to convert the name of every species of disease known to the Mintirá into a proper one. If any new disease appeared, it would be ascribed to a Hántu bearing the same name.

The Poyágs and a few others only have the power of afflicting and destroying men by spells. These are of various kinds, operating in different ways, and rapidly or slowly. The most noted is the *tuju*.* The Poyág takes a little *llín sámabáng*, or wax that has been found in a nest which the bees themselves have abandoned. Over this he mutters a spell, and waits his opportunity to *menuju*, because to ensure its success he must not only be able to see the victim, however distant, but there must be a strong wind blowing in the direction of his residence. When such a wind rises, the Poyág takes the wax, places a vessel of water, with a lighted candle or two, before him, mutters an incantation and fixes his eyes intently on the water. If he can see the image of the victim distinctly in the water, he throws the wax into the air, and the wind instantaneously transports it to the victim, who feels as if he were struck by something. Sickness follows, which is either prolonged or induces speedy death, according to the exigency of the spell.

But it is not upon every one that the spell will operate. Many persons by supernatural skill, or by counter spells or charms, surround themselves with an invisible fence or wall, which not only renders the spell inoperative, but even prevents the Poyág from seeing their image in the water. The use of invocations and charms to avert evils and evil powers, natural and supernatural, to counteract incantations, to inflict maladies and calamities, and to excite love and regard, is common. The first consist in general of *pendinding*, call-

* *Tuju*, *menuju*, literally, *to point*.

ed by the Malays *doá pendinding* prayers or invocations of defence,* (from *dinding*, a wall,) which must be repeated seven times at sun rise, and seven times at sun set. The following are examples of *pendinding* used for protection against the maleficence of enemies.

PENDINDING.

Hong káchula katumbo bisí kanduri iáng limu kahután katungálan áku tá'dinding batu áku báring dedinding bumí tideráp bértáráp tatop ángín salagorí kan láwáunku santá sábut didálam gantong klám kábut mátá oráng miningo áku dátáng klám kábut plímun áku málmun síklán muso sítruku láwáunku guru sídik turun berdoá áku mینگínákan doá plímun síklán mátá muso sítrukán láwáunku. (1)

PENDINDING.

Heh pisamín namáníá bisí áku diám dálám kándáng máleikat sablás dikíríku áku diám dálám kandong kándáng máleikat sablás di-

(1) INVOCATION OF THE INWALLED.

Hong! horn, iron shoot, an offering of the wise to the forest in solitude.† I am not walled with stone, I recline walled by the Earth my face downwards; cover me Salagorí wind from my enemies

* The proper meaning is probably "the invocation of him who is walled in."

† With all the assistance which I have been able to procure from the best native Malayan scholars, I am unable to give a translation on which I can rely of some parts of these rugged and disjointed invocations.

Hong,—no Malay can explain the meaning of this word further than that it is used in original Malayan invocations in the same way as the Arabic *Bismillah* in the modern or modified ones. It is deemed a very unhallowed word, of great power, and so *panas*, (hot), that if any man uses a *Hong* invocation three times nothing that he undertakes *for himself* will succeed, and he will live powerful and miserable, able to afflict or assist others, unable to help himself. It appears to be considered as a recognition of an Essence or First Principle beyond God, and an appeal to it for power which God has not granted to man. It is used in Javanese invocations, and a Javanese explains it to mean Embryo of Being, Primeval Essence, so that Sir T. Raffles conjecture that is the Hindu *Om* (Aum) is probably correct.—History of Java 2nd vol. p. 369.

Káchula. Chula (instead of tandok) is the name given to hard horns or horn-like parts of animals, believed to possess magical or medicinal properties. *Iang limu* [*ilmu*] *kahután katungálan*. The Malays cannot affix any definite meaning to the first two lines. Instead of the rendering given above a better one would perhaps be [magical] science for protection when alone in the forest,—or to make the offerer alone as when surrounded by a forest.

kánán ko áku diám dálám kandáng máleikat sablás díblákáng áku, áku diám didálám kandáng máleikat sablás diadapan ko terniáíá Máhamad mangkál áku terniáíá bulán bintang matáhári jíkálu tidá tiriáíá áku pun tidá terniáíá, dan terniáíá bomi dan lángít mengkal áku pun terniáíá jíkálu tidá terniáíá bomi dan lángít áku pun tidá terniáíá terniáíá máyat didálám kubor mengkál áku pun terniáíá bírkat dekabul kan doá guruku kápádá áku kabulkan Mahamad kabulkan bagínda rasul Allah máká kabul áku memákei doa sáríbu niáwá tidálá áku terniáíá sáádá iáng berniáwá diátás dunía íní. (2)

Charms to gain the affection or good will of the person charmed are much used. These are termed *Pengáseh* (by the Malays *doá pengáseh* from *káseh*, love, affection.) The following is a specimen.

PENGASEH.

Minia áku sidáyong dáýong, áku tuáng depánchur, áku tigá áku

Tear off the husk within. Hang a thick mist before the eyes of him who looks at me. Come thick mist, the concealer, and render me invisible to all enemies, opponent and assailants. True holy instructor descend, and pray that I may touch, by the invocation of invisibility, all the eyes of my enemies, opponents and assailants.

(2) INVOCATION OF THE INWALLED.

Heh Pisamin which art named Iron. I dwell within a fence of Angels, eleven on my left. I dwell within a fence of Angels, eleven on my right. I dwell within a fence of Angels, eleven behind me. I dwell within a fence of Angels, eleven before me. If Mahamad be oppressed, then will I be oppressed. If the sun, moon and stars be not oppressed, neither shall I be oppressed. And if the earth and heavens be oppressed then shall I be oppressed. If the earth and heaven be not oppressed, neither shall I be oppressed. If the dead bodies in the grave be oppressed, I also will be oppressed. Blessing to me through the reception of the prayer of my religious instructor. Receive it, Mahamad! receive it, royal prophet of God! and grant that I may wear a prayer of a thousand lives, that I may not be oppressed by all that breathe upon this world.

sepirtí páyong, áku berjálán lébéh derí áná segálá mánusiá, berkát áku memákei pengáseh, hábis káséh segálá mánusiá iáng kákí duá berjá-rí limá, usákán antará mánusiá selángkan rumput rántíng káyu ká-yan bomí dan lángrít tundo káséh sá'ádá tundo sáyáng tundo gimár pádá áku jugá. (3)

The Pimánís (from mánís, sweet) renders the person using it uni-versally agreeable.

PIMANIS.

Pucho pimánís, dáun pimánís, áku titas sámbíl berlári, dudu pun aku* terlálu mánís, berdíri pun aku terlálu mánís, mánís dipándáng segálá mánusiá berkákí duá berjári limá sepirtí búlan dangan máta-hári, terlalu mánís memandang cháyiá muká aku, birkat áku mákei doá pímanís náí cháyiá manís dí muká áku. (4)

The Panundo procures submission from others.

PANUNDO.

Páku rondo, páku rindá, áku littá dídalám sibí, áku dudu dalám

(3) PRAYER FOR LOVE.

Oil I stir and stir. I pour it out. I stand erect like an umbrel-la. I walk greater than the sons of all mankind. Blessing on me, using the prayer of love! Love [me] entirely all mankind who have two feet and are five fingered. Speak not of men, whilst grass, twigs and trees of the earth and heaven bow in love. Let all bow in affection, bow in love, towards me.

(4) PRAYER FOR SWEETNESS.

Sweet shoots, sweet leaves, I cut, running the while. Sitting [may] I [be] exceedingly sweet. Standing [may] I [be] exceeding-ly sweet. Sweet in the sight of all mankind, two-footed and five-fin-gered, as the moon and sun. Exceedingly sweet to be seen [be] the lustre of my face. Grant that I, using the prayer of sweetness, a sweet lustre may rise over my face.

oráng iáng báná, aku jugá mintará iáng libbéh rásul Allah, meláku-
kan áku simbiléh minámá mámu, áku dudu segálá manusiá iáng ber-
niáwá ábés tundo, tundokan Alláh, tundokan Mohamad, dítundokan
bágindá rusul Alláh, birkát áku memákei doá pinundo áku nundo
segálá manusiá, berkákí duá berjári límá, kábulkan Allah, kábulkan
Mahamad, kábulkan bágindá rasul Alláh, kábulkan áku memákei doá
pinundo áku memádáp túntong berjiwá segálá manusiá berkákí duá
berjárí límá. (5)

The Chucha causes enemies to lose their strength and be humili-
ated.

CHUCHA.

Siluso pádáng silásá
Silígí bátáng suláséh
Mintá tutop háti iáng gusár
Mintá buká háti iáng kásih
Ajé éjé éché échá
Anú láláng tumbo delimbá,
Aku jéhét áku depuji
Aku sáláh áku disumbáh
Usákan samantará manusiá
Berkákí duá berjári límá

(5) PRAYER FOR THE SUBJECTION OF OTHERS

A nail, a low nail I place in a sibi.* [When] I sit amongst
many men [may] I be amongst the greatest, prophet of God! Grant
me the fortune to cut that which is called Mamu. When I sit, may
all mankind who breathe wholly bow. Make them bow, God! Make
them bow, Mohamad. Make them bow, royal prophet of God! Grant
that I, by using the prayer of obeisance, may bow down all men, two
footed, five fingered. Grant it, God. Grant it, Mohamad. Grant it,
royal prophet of God. Grant that I, using the prayer of obeisance,
may stand before the living points of all mankind two footed, five fin-
gered.

A kind of handkerchief.

Sidangkan gájá putih
 Gájá bláng sábráng láut
 Songsáng bulu songsáng gáding
 Songsáng bulei songsáng káki
 Songsáng tángan songsáng urat
 Songsáng dáging songsáng dára
 Tundo minfumbá kilíngking káki kiríku,
 Miníá áku terkíláng turun dipanjuru láwáng
 Aná ngang diujong bulo
 Aku jolo dangan timiáng
 Mátáhari terkilé k dikíning áku
 Simut períring díbíbir áku
 Chuchá Alláh chuchá Máhamad
 Chuchá bagindá rasul Allah. (6)

(6) INVOCATION FOR ABASING.

Siluso pádáng silásá.
 Throw a suláseh branch.
 May the heart that is angry be shut.
 May the heart that is kind be opened.
 Ajé éjé éché échá.
 A young lalang springs up in the moist ground.
 I am wicked, I am applauded.
 I do wrong, I am revered.
 Why say amongst mankind,
 Two footed, five toed,
 Whilst even the white elephant,
 The streaked elephant beyond the sea,
 Reverses its hair, reverses its tusks,
 Reverses its trunk, reverses its feet,
 Reverses its front legs, reverses its veins,
 Reverses its flesh, reverses its blood,
 Bows down reverentially to the little toe of my left foot,
 My oil pressed out runs down at the side of the door.

The Pemata Lida is a prayer for rendering enemies speechless.

PEMATA LIDA.

Pínáng kring pináng kotei
 Dibilá dikákí gájá
 Dará jántong áku konchi tulángniá áku pátá pátá
 Héh Alláh Héh Máhamad Héh Bágindá rasul Alláh
 Mintá kábulkan doá pemátá lidá
 Aku mátákan lidá muso sitru lówáunku
 Limáh ánkáu krásla aku
 La illáhá ilalláh berkat aku memákei doá pemátá lidá. (7)

The Pebinchi (from *binchi*, hatred,) is used to excite hatred in the object of affection towards a rival.

The young ngáng* is on the end of the bambu,
 I strike it with a sumpitan.
 The sun is lifted up on my eyebrows.
 The waves [of the sea] roll on my tongue.
 The ants follow [each other] on my lips.
 Abase, God! abase, Mahamad!
 Abase, royal prophet of God!

(7) INVOCATION OF THE TONGUE-BREAKER.

Dry betelnut, dried up betelnut,
 Cut by the foot of an elephant.
 His hearts blood I lock, his bones I break, break.
 Heh God! Heh Mahomed! Heh royal prophet of God!
 May the prayer for breaking of the tongue be granted
 That I may break the tongues of enemies, foes and assailants.
 Be you soft, be I hard.
 La illáhhá il Alláh! bless my use of the prayer of the tongue-breaker.

* This bird frequents the upper branches of the highest trees, and is probably in general beyond the reach of the sumpitan,

PEBINCHI.

Pucho pebinchi daun pebanchi aku rintas tujo tánkeh tujo lé aku gúnting tujo káli aku megunting hati áná sidáng siáno itu, ánkau memandáng siáno itu bagimána ángkau memandáng hábu, bagimána ánkau memandáng páyá, dudu ánkau binchi, tidor ánkau binchi, berjálán ánkau binchi, mákán ánkau binchi, mándi ángkau binchi, mímum ánkau binchi, kormeimei báyang sidáng siáno itu, sampei tigá hári putus binchi ánkau melíhat pádá siáno itu, memandáng áku sa'orang terlámpau mánis bági ángkau memandáng iáng bercháhiá muka aku duá blas hári turun mátáhári sama turun smángat ánkau náí mátáhári sama náí smángat siáno itu. (8)

PEBINCHI.

Pucho beruwáng ruwáng disiláng daun pebinchi íman pujo báwá puláng hati didálám terlálu binchi ánkau berdirí binchikan siáno itu, ánkau berjálán binchikan siáno itu, ánkau tidor binchikan siáno itu, usákan samantará mánusiá sidángkan rumput ránting káyu káyán lági hábis binchikan mandáng siáno itu, turun cháhiá pádá muká áku jikáláu bercháhiá málam bercháhiá muká siáno itu jekáláu tiadá bercháhiá málam tiadá bercháhiá muka siáno itu áku turunkan mímíá pemánis áku náikan doá pebinchi binchikan segala umát segala

(8) INVOCATION TO EXCITE HATRED.

Shoots of the Hate plant, leaves of the Hate plant. I pluck seven stalks, seven leaves. I cut them seven times, and cut the heart of (the son of such an one.)* Look on that person as you look upon ashes, as you look upon a swamp. Sitting, hate! Sleeping, hate! Walking, hate! Eating, hate! Bathing, hate! Drinking, hate! Come, shadow of (such an one.) Until three days are passed, hate to look on (such an one.) Look on me alone as surpassingly sweet, as if you saw that which shone brightly on my face. Twelve days, when the sun descends, let your spirit descend together with it, when the sun rises, let the spirit of (such an one) rise together with it.

* Here the name of the person against whom the *doa* is directed is mentioned, when using it.

manusiá turunlá pemánis siáno ítu náí doá pebinchí dimuká siáno ítu hábés binchí sikilián íáng berniáwá memandáng muká siáno ítu meningár swára siáno ítu. (9)

The *Tínkal* consist in spoken spells or charms, or in amulets or talismans.

The following specimens are of the first class.

TANKAL TIKAM GAJA.

(A spell used when about to attack an elephant.)

Hong! gampáh bádi, gampáh dáh chimárong, dáh chimukar, sibá kiri, sibá kánán, áku membuáng bádi gampáh gájá mengugnot gájá mengubáng, mengubáng disábráng dánáu, príó mendide blángá mendide sabráng tánjong, sibá kiri, sibá kánán sibá kumbáng bádi néné, áku melepaskan jari tángán. (10)

TANKAL TIKAM GAJA.

Iáng néné kapadá áku iáng aku kapadá néné, báu áku báu áyer báu áku báu daun, báu áku báu táná, báu áku báu néné, báu áku báu

(9) INVOCATION TO EXCITE HATRED.

Shoots of Beruwang intermix with leaves of the Hate-plant. By faith and sacrifice carry away the heart within with excessive hatred. When you stand, hate (such an one.) When you walk, hate (such an one.) When you sleep, hate (such an one.) Speak not of mankind, while even grass, twigs, and trees altogether hate to look on (such an one.) Descend brightness on my face. If the night brighten, then shall the face of (such an one) brighten. If the night do not brighten, the face of (such an one) shall not brighten. I cause to descend the oil of sweetness. I cause to rise the invocation of hatred.

Hate! all people, all mankind.

Descend! sweetness of (such an one.)

Rise! prayer of hatred on the face of (such an one.)

Hate entirely, all that breathe! to look on the face of (such an one,) to hear the voice of such an one.

(10) Hong! quake, ghost, quake. I wish to cast down. I wish to

kubáng, santap simpolan pináng ku mántong hidong néné, káki tá-
 ánkét káki brát tángan ditátang tángan brát bági digántong batu bá-
 lá, bági digántong tampáyun, bergrá batu, sámá bergrá tángan néné,
 bergrá sámá bergrá táli prut niambut jári tángan chuchu néné. (11)

The following is a *táńkal* or charm to allay storms.

TANKAL RIBUT.

Rambong per-rango'on bátong gájá menáut gájá mengobáng men-
 gobáng sabráng láut siá kiri siá kánán, aku kámbáng ribut. (12)

On entering the forest the following *táńkal* is repeated.

Sibá kiri sibá kánán segálá muso sitru láwáńku mintá buáng pan-
 dangan padá aku, aku berjálán sa'orang juá. (13)

strike. Go to the left. Go to the right. I cast out the ghost, quake.
 The elephant murmurs. The elephant wallows on the opposite side
 of the lake. The pot boils, the pan boils, on the opposite side of the
 point. Go to the left, go to the right, go to the water vessel, ghost
 of grand father,* I let loose the fingers of my hand.

(11) My grandfather's to me, mine to my grandfather; my smell,
 smell of water; my smell, smell of leaf; my smell, smell of earth; my
 smell, smell of grandfather; my smell, smell of mud; eating pinang
 mixture, I shut grandfather's nose; hind foot do not raise, hind foot is
 heavy; fore foot do not raise, fore foot is heavy as if there was hung
 a split stone, as if a water jar were hung; move stone, with it move
 fore feet of grandfather; move together; move entrails; receive the
 fingers and hand of grandchild, grandfather.

(12) Rambong perrango'on batong; the elephant gathers in, the
 elephant wallowing, wallowing on the opposite side of the sea; go to
 the right, go to the left; I break the hurricane.

(13) Go to the left, go to the right, all my enemies, opponents
 and assailants. May your regards be cast aside from me. May I
 walk alone.

The elephant, to wit.

Spells and charms are not however limited in their power to men, animals, and the forces of nature. Even the demons themselves are subject to them. For protection against the Hantu Sáburu, the following charm is repeated.

Apá námá ánkáu ánjing Sokom námá ánkáu ánjing itám námá tuhanko áyer námá tuánko riddáng námá tuánko után pós pigi ánkáu puláng bawéi ánjingku puláng, ápá diburu sini tádá bábi tádá rusá ditutup lobáng idong kábáu idong suda ku doá báu ku báwa angin lálu. (14)

The Hantu kapiélu and Hantu Kámbong are exorcised by the following spells.

TANKAL KAPIELU.

Hong pièlu mulá pièlu terbáng jábut biluntok bilum táwár áku membuáng táwár pièlu dikapálá áku membuáng diátás kápálá iláng pièlu mintá buáng diátás kápálá. (15)

TANKAL KAMBONG.

Hong jiwá mulá jiwá jiwá sheitan suda áku táwár jiwá tompáng suda áku táwár jiwá tákiná suda áku táwár áku membuáng jiwá kras smángat ánkaulá smángat jiwá bángket bunkar segalá jiwa dálám prut dálám badan terbit lancháng áku memáláng segalá jiwá. (16)

(14) What is your name, dog? Sokom is your name, black dog. Your master's name is Water. Your master's name is Riddang.* Your master's name is Forest. Begone, go you away, take your dog away. What do you hunt here? There are no hogs, no deer. The nostrils are shut, the smell of your nose I have charmed. My smell the wind carries away.

(15) Hong! fever, primitive fever, fly away, be plucked out, uncharmed biluntok. I cast a charm for fever on your head. I throw it upon your head. Lose the fever. May it be thrown away above your head.

(16) First essential life! primitive life! the devil's life have I

* The name of a tree.

Amulets are much used. They are formed of pieces of kúnyit, bánglé, and other substances strung on a shred of terap bark, and bound round the neck, wrists or waist. They are preservatives against demons, bad winds, and generally against all evils.

There are spells for rendering the person who uses them invulnerable, but the fortunate possessors are careful not to impart them to others. There are several invulnerable men at present amongst the Mintirá, as *Lúat* at Simanjéh, *Pré* at Brináng, *Hambáng* at Lobo, *Bátin* at Kláng, *Tonggáng* at Símantán, *Páughulu* at Jibbá, *Kdká* and *Mèmpis* at Pangáwal.

WISHING PLACES.

There is a famous Wishing-Rock in Kláng called *Bátu Tré*, to which the Mintirá have, from time immemorial, been in the habit of resorting. A person going there must not carry fire with him, because, if a spark should fall upon the rock, it would immediately take fire and be consumed.

On the rock grows the flower *Chinkwi*, which is not found elsewhere, and can only be gathered by women. Whoever possesses even a little of this flower acquires great power. If a woman, she is followed by men, and if a man, by women. It is kept in a piece of small bambu, and placed in the ear, or fastened by a string round the waist. If any person wishes to obtain a portion he must sleep with the woman who has it, and take it by stealth. In the morning he must place 8 or 10 silver rings upon her fingers. When she awakes and sees the rings, she knows that she cannot recover the *Chingkwí*. If the flower be caried to sea, its virtue is lost. It is much sought by the Malays, who are greatly addicted to the use of aphrodisiac charms and substances.

There is a Wishing Place on the summit of Gunong Bermun, which is much resorted to by the surrounding Mintirá. Other moun-

charmed. The life that lodges have I charmed. The life that is affected have I charmed. I cast out the hard (evil) life. Let your spirit, the spirit of your life, rise and be lifted up, all the life in your belly, in your body, spring up, be drawn out. I replace all your life.

tain summits are also wishing places, because each has its good spirit. When a person goes to a wishing place, he carries with him two white fowls, and all the different articles of food in use. The latter he places in a sort of flat basket or tray made of rattans, which he suspends from a tree, or places on the highest point of the summit. He then kills one of the fowls, placing it on the tray, and sets the other free. He now silently addresses to the spirit of the mountain all the wishes that he has at heart. This done, he prepares and eats a meal on the spot. If what has been desired at the wishing place does not come to pass, it is revisited a second and a third time; after which, if the wish still remains ungratified, it is considered that the spirit is not favorable to the wisher, and he therefore repairs to another mountain spirit.

SUPERSTITIONS OF CULTIVATION.

It was mentioned (p. 255) that the Binuá, on commencing a new ladang, make offerings to the *Jin Bumi*. A Mintirá, when he has resolved on abandoning his old ladang, searches for a good locality. Having obtained one, it remains to be ascertained whether the supernatural powers are favorable to his occupying it. This he does by attending to his first dream after selecting it. Should he dream of being chased by a dog, or by an enemy, or of entering water, or of water flooding the locality, or of any other incident which is considered a bad omen, he proceeds to seek for another spot. The favorable omens are to dream of felling or climbing trees, ascending a hill, or of growing plants &c. When his dream gives him assurance that he has selected a fortunate place, he repairs to it, takes a little siri, repeats a charm over it, chews it, and then spits or rather blows it out of his mouth (*súmbor*) towards the four cardinal points. The tankal used is the following: *Umá pemuká mulut pemuká áku bukálá bliá di-ilir dibilá olé bliá áku membuáng séítán játo bliinto bulum ko táwár áku membuáng bisá séítán mintá buáňkan mintá jáukan segálá séítán.* (Uma,* the opener of the mouth, the opener I, open, young man towards the lower part of the stream. Let it [the place]

* A clearing for paddy on hilly or dry ground.

be cherished by the young man. I cast down the devil. Before I have charmed, I have drive away the venom of the devil. May all devils be driven away, may they be far [from here.])

The *samborán* ended, he cuts down a little jungle (*tabas sa'pidápor*.*) Three days afterwards he returns, and begins his labour in earnest. Having cleared a sufficient space, he waits until the trees which he has felled are sufficiently dry, and then, on some clear windy day, sets fire to them. When the ground is ready to receive his plants, he prepares some *tippong táwár*, or rice flour mixed with water, in which he dips a bundle of leaves of *sátáwár*, *gandá rusá*, *áti áti*, and *ribú ribú*, and sprinkles it here and there over the *ladang*. He then plants some *bángle*, which has the property of driving away the evil power or bad spirit that lurks in the ground (*buáng bádi tánd*.†) The *ladang* being now completely charmed, he proceeds with confidence to plant his potatoes, *klèdi*, &c.

Rice, however, requires a special charm of its own. On proceeding to sow it, about two chupas of paddy are taken and mixed with *tippong táwár* and lime juice. This is carried to the place where it is to be sowed, and along with it a knife of the kind called *písau ráut*, a sarong, an incense pot (*perásápan*) and leaves of the *ribú ribú*, *si-dingin* and *pándán*. The paddy is smoked in the fumes of benjamin or lignum aloes, and the leaves placed over it. The sarong is extended on two erect poles. The knife is laid on the ground. The charm or invocation is then repeated: "Smilláhi mujor bri síju bri dingin ko melittákan budé." (In the name of God. Quickly give cold, give coolness. I place the young [the paddy seed.]) The leaves are now taken and stuck into the ground, and the paddy is then sown. Three days afterwards the whole field is sown, holes having been previously made for the reception of the seed. In planting *paddy sawa* or wet rice, similar ceremonies are used.

When the crop is ripe, and a day has been fixed to commence the harvest, a large quantity of food is collected, and some guests are invit-

* Literally fells a cooking place (*sa'pidapor*) of jungle i. e. as much as a cooking place occupies.

† *Jimbáláng* and not *bádi* would be here used by the Malays, who confine the latter word to the haunting of a murderer by the ghost of his victim.

ed to the feast of the *Rice new years day* (Makan sulong táhun.) On the morning the head of the family, having carefully wrapped his clothes round his whole person, (berslubong,) proceeds to the paddy with a tué (the instrument used for cutting paddy) and first repeats this invocation "Smilláhi áku mengámbil smángat páddi jángan dibri sijo bri dingin áku mengámbil budé budé puláng ka rumá áku." (In the name of God. I take the spirit of the rice plant. Let it not cause cold, let it give coolness. I take the young, [paddy], away to my house.) He then cuts seven ears, and carries them to the house. He next orders some of his household to go to a different part of his field, and cut a considerable quantity of paddy. This is brought in, the grain trampled and rubbed out of the straw by the feet, husked, and cooked along with the food that has been collected on the preceding day. When the guests have feasted and are about to depart, each of them receives a little of the new rice and food uncooked as a birkát or blessing.

MARRIAGE.

Marriages are not ordinarily made with the haste of the Tampui Feast. When a young man is desirous of marrying a girl, he tells his wishes to his father, who communicates with the father of the girl. If he agrees to the match, 4 or 8 silver or copper rings are presented to him, and a day is appointed for the marriage. When it arrives, the bridegroom is conducted by his parents and relatives to the bride's house, where a large feast has been prepared. On entering, he pays his respects to the near relations of the bride. If the Batin does not reside at a great distance, he always attends, and presides at the ceremony. Siri and its usual accompaniments having been placed ready on a niru,—the bride takes a bundle, and presents it to the bridegroom, who presents another to her in return. The father of the bridegroom then addresses him, enjoining him to cherish his wife, to be kind to her, on no account to beat her or behave harshly to her, but, if he should ever be offended by her, to complain to her parents. The father of the bride lays a similar injunction upon her. The company are then feasted. The bride and bridegroom eat from

the same plate, a custom which is common to most of the Hindu-Chinese and Malayan races. The bridegroom remains for the night.

The teeth of the bride and bridegroom are filed with a stone before the day of marriage.

BIRTH.

(Vide ante p. 270.) When the mother is in labour, a cup of water is charmed and administered to her. The juice of the *dáun pamanto* and *dáun pamádám* is given to the child, while this prayer is repeated: “*Kurméiméi tapándáng séítán binto ránggam ankau samá pádám pádám kau suda tráng nan sudá ditingo pandángan ku ada mengikut tuhan pamanto mintá padamkan áku sekáli sudá tábáli minta pádámkan sekáli nan sudá.*” A name is given to the child at the moment the umbilical cord is cut, and this is retained until marriage, when a surname or cognomen (*gilar*) is bestowed, which is used ever afterwards in lieu of the name. These customs, however, are not inflexible. The birth name is sometimes superseded before marriage, when misfortunes happen to the child, under the impression that it is unlucky; and the *gilar* of the parents frequently gives place to the name of the eldest child with the prefix *pa* (father) *ma* (mother). The latter is considered a peculiarly pleasing mode of address, parental being no doubt found, in many cases, to be stronger than personal vanity. A similar custom prevails amongst the Malays of Naning, Rambau, and the other states of the interior, and has probably been imported from Sumatra, from whence this portion of the Peninsula was directly colonized. The importance of proper names, in assisting to carry us back to remote times in a people's history, is well known to the antiquary in Europe. Amongst those aboriginal tribes of the Peninsula whose native language has nearly disappeared before the modern Malay, the enquirer often finds in the names of places and men the principal monuments of antiquity. It is probable that these names are really words of a language once spoken, although the signification of most of them has been lost. The examples subjoined, which may be received as fair samples, (for they were the names of all the relatives and acquaintances of my infor-

mant respectively,) are an additional proof of the fact mentioned in another paper* that neither Hinduism nor Islamism has impressed these tribes, save in some cases in a slight and superficial manner. No people ever zealously embraced these religions, without the names of the gods of the former and the prophet and apostles of the latter being largely appropriated by them. Lists of Malayan names exhibit many Mahomedan and a few Hindu ones, but the greater number are pure Malayan or ante-Malayan.

NAMES OF MINTIRA.*

<i>Males.</i>		<i>Females.</i>	
Pá Dáun	Pá Lokot	Símun <i>m.</i>	Melém <i>m.</i>
Gimgám <i>m.</i>	Smároi	Ríngít	Tánnáng
Gállá <i>m.</i>	Sínyá	Tánáh	Tíngál <i>m.</i>
Ságat	Bosojulot	Rányák	Rugáng
Piníungá	Dáyong <i>m.</i>	Lijoh	Síbá <i>m.</i>
Pá Sínghán	Ikán <i>m.</i>	Chá'áp <i>m.</i>	Kácho
Sawanéng	Chíríáu	Sá <i>m.</i>	Kochén.
Siká <i>m.</i>	Príng	Márumput <i>m.</i>	Lontáng
Pinés <i>m.</i>	Mínái	Simonyé	Chimás
Chágák	Powoh <i>m.</i>	Ingás	Hulát <i>m.</i>
Pádan <i>m.</i>	Chimáh	Sínáron	Bungkas <i>m.</i>
Iláng <i>m.</i>	Sungei <i>m.</i>	Mákláng <i>m.</i>	Jungéh
Gigái <i>m.</i>	Rumpong	Nápon	Assán <i>m.</i>
Ginyá	Palsái	Bakát	Singom
Jángkáng	Hanás	Goám	Mágoýáng
Ru <i>m.</i>	Bungá <i>m.</i>	Mábánkkéng	Mábáyo
Chíchár <i>m.</i>	Pèèro <i>m.</i>	Dáu	Umál
Singájá	Síá <i>m.</i>	Mino	Platáp
Inát <i>m.</i>		Ché'én	Dapói <i>m.</i>

* *Ante p. 16, 17.*

† Those marked *m.* are also Malayan names.

To the names of mountains and rivers of the country of the Bermun tribes given in the paper on the Binua of Johore, the following names of *dúsáns* of the Mintira towards Muar may be added. As many of these names, from the nomadic system of squatting, must be modern and transitory, they are not of equal importance with the names of mountains and rivers. Biná', Milidéng, Umbái, Límámá, Siélang, Timiáng, Gábang, Gintung Rawa, Sa-

NAMES OF ORANG BESISI.

<i>Males.</i>		<i>Females.</i>	
Nodo	Kúlit Jawa	Chíante <i>m.</i> (Chántí)	
Kol	Sijah <i>m.</i>	Núka <i>m.</i>	Bodo
Búngsú <i>m.</i>	Slat <i>m.</i>	Nabongkok <i>m.</i>	Nonía <i>m.</i>
Saleh <i>m.</i>	Rién	Praim <i>m.</i>	Allún
Kiché <i>m.</i>	Ulán	Klosoi	Nokaloú <i>m.</i>
Mundo <i>m.</i>	Glawá	Júkút <i>m.</i>	Jampán
Souí	Pangoh	Kolot <i>m.</i>	Gohóm
Rajé	Rumpét	Límong	Panchong
Gadóng <i>m.</i>	Tánnáh	Chák	Bonglong
To Kússai <i>m.</i>	Súlóng <i>m.</i>	Kintot	Kéwé
Jarúi	Línák <i>m.</i>	Chak	Iloi
Joúi	Katúng	Takoh	
Sambílai	Kunong		
Bóból	Mót <i>m.</i>		
Wah	Kulóú		

BURIAL.

The grave of the Mintirá is not protected by a roof like that of the Binuá of Johore, but in other respects resembles it. Above it, they kindle a fire, *úngún*, that the smángát or spirit of the deceased may warm itself, and not weep and wail in the grave from the cold. On the grave they also place some paddy, plantains, klédé, klédi, potatoes, siri, betelnut, gambier, lime, tobacco, a pisáu ráut made of wood, and a sumpitan which they have previously broken in pieces,—praying the smángát that he will not seek more from them. After a death in the ladang, nothing more is planted there, and when the crop or plants on the ground have been gathered, it is abandoned.

WORLD BEYOND THE GRAVE.

It was mentioned that the Binuá of Johore have apparently no belief in the existence of the soul after death. The Mintirá have a pe-

bré, Op, Tíráp, Jangká, Jilutong, Bungá, Lúrabánung, Durían Gántang, Sungi Kroh, Páku, Berhot, Jijáláh, Timponéh, Mángis, Nánás, Pittái, Luwái, Rilei, Limáu, Gobang Lango, Ginitil, Séneng, Kimá, Passu, Tilok Pánjang, under Batín Pálimbéi, B. Kichí.

cular and positive faith in another world. The smángát, i. e. the soul (or insubstantial but sensible body which the spirit permeates, and which, according to some of my informants, was preyed on by the Hántus) at death leaves the gross or earthly body, and is carried by *BAYANG LASSA* on the wind to *NGANGNARI* or *PULO BUA* (Fruit Island*) which lies far away where the sun sets. There the smángáts of all the dead live together in harmony and constant enjoyment, for the great island is full of trees, and there are none that do not bear pleasant fruits. They marry and have children as in this world, but pain, disease and death are unknown. The smángáts of men who have died a bloody death do not go to Pulo Buá, but to *TANA MERA* (Red Land) which is a desolate and barren place. Its smángáts repair to Pulo Buá to procure food.†

TRADITIONAL TRACES OF ORIGIN &c.

The Mintirá do not appear to have any more precise traditions respecting their origin than the Besísí and other tribes. They all believe that they are the original occupants of the country. "You know" said a Besisi to me "that this is the Pulo Besar or Great Island which belongs to us, and not to the Malays, who have intruded into our country." The Mintirá have the same notion, and those who lately visited me added, when conversing on this subject, that the Pulo Besar is so great that in former ages their ancestors were employed for many generations in endeavouring to circumambulate it, but each new generation meeting a new country, the last of their nomadic forefathers settled where the race now lives. They were not in continual motion, but each generation, after advancing a considerable distance, rested, and the succeeding one, when grown up, resumed the journey. The Mintirá have the following tradition respecting the origin of their Batins. The first of all Batins and rulers was *Bátin Changei Bisi*, whose nails, as his name imports, were of iron. He lived at Gunong Penyárong in Menangkabau. By him a Raja was placed over Menangkabau, a Bindáhará over Páháng, and, at a

* This will remind the reader of Bolotoo.

† The Slain not the Slayer, is excluded from Ngáng,nári. They have no belief in future rewards and punishments.

later period, a Panghulu over Ulu Pahang. Batin Iron Nails, in the course of time, died, leaving in his place his son *Batin Krát Tiga* or Batin Three Pieces, who derived his name from the following circumstances. The Bindáhará of Pahang was greatly offended at a Panghulu being placed over Ulu Pahang, but dared not shew his resentment openly during the life time of Batin Iron Nails. The latter was well aware however of his feelings, and on his death bed enjoined Batin Three Pieces not to receive any complaints nor seek anything from him. The Bindáhará, finding that Batin Three Pieces, after he succeeded his father, was not disposed to afford him any opportunity to open an intercourse or provoke a quarrel, resolved to take the initiative himself. He therefore sent some of his Panglímás to the Bátín, who requested presents of various kinds from him, and, upon his refusing to give them, set upon him and cut him down. But every wound which they inflicted immediately closed, and the Batin remained alive and scathless. The Panglímás sent word of this to the Bindáhará, who hastened to Menangkabau in person, and ordered the Panglimas, in his presence, to cut the Batin in three. This was done, and each piece, as it was severed, carried to a little distance. No sooner were they placed on the ground, than they flew together and reunited, and the living Batin stood before them uninjured. The Bindáhará then took counsel with the Raja, but the latter advised him to desist from all attempts to molest Batin Krat Tigá.

It is because all rulers, from the Raja downwards, were first instituted by the Batin, that, to this day, the Batin must be called to take a part at the installation of every new Raja.

In governing, added the relator, the Batin, in the forest, is guided by the *Silá silá* (custom, or what used to be done from times of old); the Panghulu, in the Balei or Hall, by the *Birundáng* (or written laws); and the Raja, in the Astáná or Palace, by the *A'délan*, or simple Justice.

THE RELATION OF THE MALAYS TO THE MINTIRA.*

The great superstition of the Bermun tribes is their best protection against their equally superstitious and more civilized neighbours. The Malays and Chinese of Malacca, with few exceptions, but particularly the Malays of Naning, Rambau and the other states in the interior, have implicit faith in the supernatural power of the Poyangs, and believe that many others amongst the aborigines are imbued with it. Hence they are careful to avoid offending them in any way, because although they do not attempt, at the time, to retaliate, or even use threats, it is believed that they take the offence deeply to heart, and will sooner or later by occult means revenge themselves. The Malays, when they have opportunities, resort to them for the cure of diseases, with which they or their relatives are troubled. Revenge also not infrequently sends them to the Poyang, whose power they invoke to cause disease and other misfortune, or even death, to those who have injured them.

Amongst the Malays themselves, the *tuju* and other supernatural arts are practised, but their practitioners are considered inferior in power to those of the aborigines.

The very circumstance of these tribes remaining unconverted, is probably a principal cause of the belief in their possession of unhallowed powers. New creeds in all countries are received without a total abandonment of the ancient ones. So long as the existence of the old gods and demons of the land is credited, multitudes will ask their aid or deprecate their wrath, although they believe it is sinful to do so. To this day neither Hinduism, Islamism, nor Christianity itself, have extinguished the ancient superstitions of the countries where they prevail.

From this dread of the Poyangs the ORANG RAWA appear to be exempt. This people are natives of a country in Sumatra called Rawa,

* I do not here consider the political relation, which could hardly be done without entering more fully into the constitution of the *Menangkabite States* (lying between Malacca and Salangor, on the one side, and Pahang, on the other) and the peculiar character of their people, than consists with the character of the above notes.

Rau and Ara, lying immediately to the north of Menangabau, and penetrated by the large, and scarcely navigable, river Rakan. They are distinguished for their trading character, and, as traders and settlers, they have for a long period, but particularly during the last twenty or thirty years, annually repaired to the Peninsula opposite, sometimes by way of the Rakan, but more generally by the River Siák. They are bold, persevering, and penurious, qualities which have long enabled them to engross the principal internal traffic between Malacca and Pahang. They always go well armed, but the chief source of their strength is their social spirit, which leads them to make common cause against those who have injured any of their nation. They are now settled in considerable numbers in Rambau, Sungi Ujong and the western part of Pahang, and their numbers and power yearly increase, and become more formidable. About seven months ago, bands of them, under Bâtá Bidohom, an invulnerable man, attacked the Mintirá in different places, killed many of the men and carried away more than a hundred of their women and girls into Pahang, where they sold them as slaves. The Rawa declared that they would hunt down the Mintirá every where, and deal with them all in the same way, in consequence of which the greater number have left their houses and are now scattered far and near. Several parties have come within the British boundary.

In a series of papers illustrative of the Malays, which will appear in the Journal, the consideration of their earlier relations to the aborigines will be entered upon more advantageously. Here I only remark, with reference to the incantations, charms, and other superstitions of the Mintirá, that the greater part appear to be essentially native,*—that is, they have not been borrowed from the Hindus or Arabs, but have assumed their peculiar form from the state in which the tribe has existed on the Peninsula from time immemorial, while, in substance, they have been transmitted directly from the same common source to which a large part of the inhabited world must refer its earliest superstitions. The religion of the Mintirá is the Primitive

* The Arabic portions have been added or substituted by Malays.

Heathenism of Asia, which, spreading far to the east and west, was associated with the religions of the eldest civilized nations, for it flourished in ancient Egypt before the Hebrews were a people, in Greece and Rome, and bids fair to outlast Hinduism in many parts of India.

MISCELLANEOUS REMARKS.

The constitution of society is as simple amongst the Mintirá as amongst the Binaú of Johore. Perfect equality prevails. The Batin is not distinguished in his manner of life from the others. Crimes are very rare. Theft is unknown. Children are carefully instructed to avoid it. Their only other education consists in teaching the boys to climb and cut trees and to use the sumpitan, and the girls to make bags and mats. The only play thing used is the *gássing kondé* or top.

They have no weights. The cocoanut shell is used as a measure. The musical instruments in general use are the *sálong* (suling) and *karánting*. The rabana and gindang are also used.

Their weapons are the sumpitan, chinankas (a kind of sword) kris, and limbing (spear.)

The most prevalent mortal diseases are the *sakit mati dituju orang*, (death from tuju,) *sakit punan*, *sakit bara sisip*, and *bara terkilir*.

There are no traders, shopkeepers, or artificers.

Their only resource when troubled in mind is to sing.

They do not bathe frequently.

They do not mix socially nor intermarry with other Binua tribes, nor with Malays.

Mineral medicines are unknown, and the only animal substance used as a remedy is the oil of the boa constrictor.

Writing is unknown. They reckon dates by knots on a string.

The Malayan Hantus called Plésset, Polong, Bajang, Pontiana, and Penangalan are not Hantus of the Mintira, although, from intercourse with the Malays, many of them know their names and attributes.

The flesh of the elephant is not used. The fruits used are the *támpuí*, *tákáro*, *lára*, *kandím*, *kimók*, *klédáng*, *tampuné*, *klèrés*, *pu-lásson*, *rámbugstán*, *ramnían*, *léráng*, *práh*, *jiréh*, *kingong*, *kadumpal*,

kumpal, binnong, táankoí, rédan, sikráng, ampádil, bángkong, putéh, lonáh, kamálun, didálin, mangkápas, jángkáng, bombong, luén, kamuí, sóp, chittong, sippam, lanjut klissá, lálán, kimoh, sirdáng, rumíang.

The names given by the Mintirá to the different varieties of paddy cultivated by them are the following.

klédáng	mrét	ríbu	hatí kirbo
támpoé	náchin	átáp	srí gunong
sáring	undan	tungol	pulut itám
koái	lámpei	burá.	„ puté

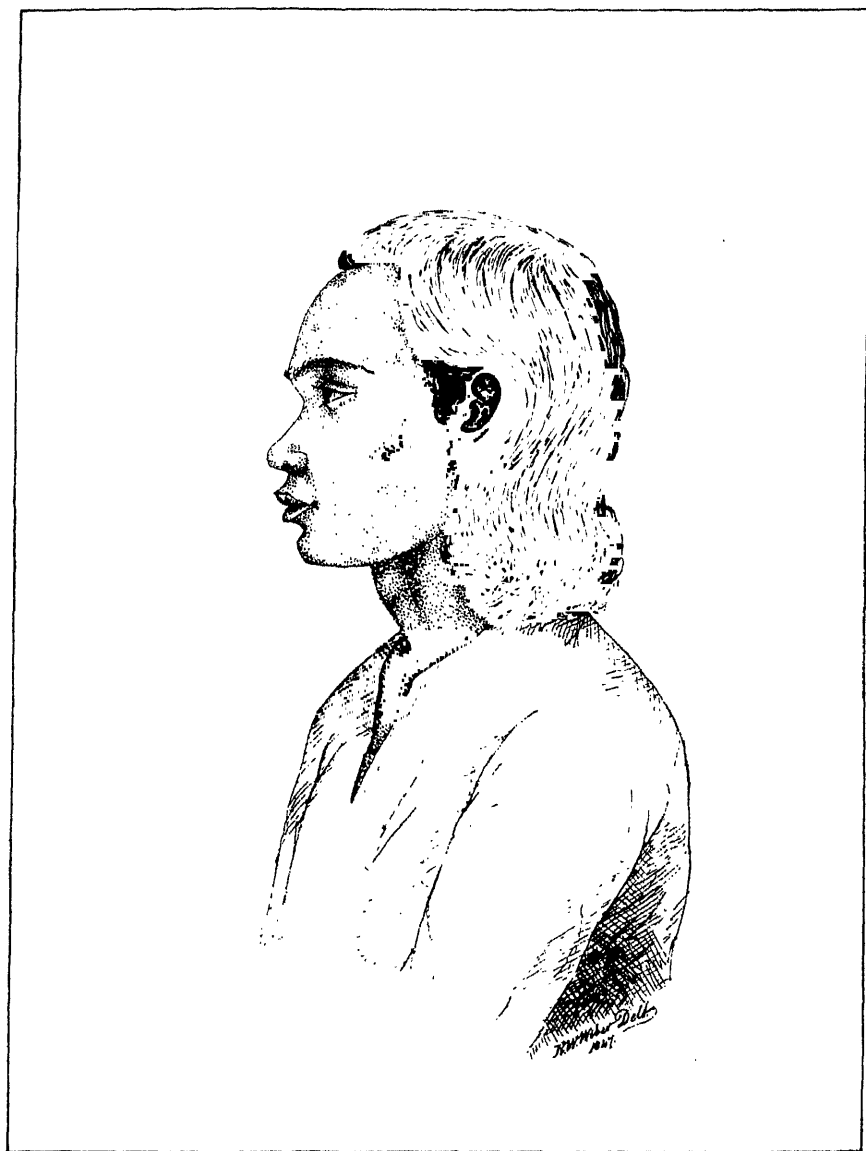
The dry rice cultivation is by far the most prevalent, but the wet cultivation is also resorted to at Lábo, Malim, Širdáng, Páyong, Pás-sáng, Jukrá, Ráwáng Kíhí, Ráwáng Besár, Kiddáng Pássáng, and Sippáng Kíhí.

VISIT OF A PARTY OF ORANG MINTIRA TO SINGAPORE.

In October last my Malay writer, Inche Mahamad bin Hájí Abdúl Fathá, whom I had sent to Malacca to collect additional materials for a comparison of the languages of the aboriginal tribes, informed me that he had brought a party of the Mintirá to his house in Malacca, and thought he could induce them to visit me in Singapore, that I might be enabled to gain a more thorough knowledge of the character and condition of the aborigines than I could do during the short intercourse which I had had with some of them when I was in Malacca. The party in question had come into the British territory some time previously, and settled at Rumbíáh on Mr. Westerhout's land. I requested Mahamad to bring them to Singapore, and they arrived here on the 16th. of October and remained till the 7th. of this month (November.) The party consisted of Páwáng and his wife, Parut and his wife, and Tállá.

They hesitated much to undertake the voyage, as the race, like all the other tribes of the interior, have a hereditary dread of the sea, and no Mintirá had ever ventured upon it from time immemorial. When they came on board the *Skochí* they were at once placed below, to prevent their being frightened by the waves and the motion of the vessel. They soon became very seasick, and it was not till the boat was opposite Pulo Pisáng that one of the men had so far recovered as to venture to rise and look round. But no sooner did the rolling waves meet his sight than he was seized with fear, and plunged below the deck again.

When they took up their residence in my *kampong*, they were at first a little reserved, although they had evidently seen Europeans frequently. On the second and third days their principal employment, while their poisoned arrows lasted, was to shoot birds, and they soon discovered more species in the *kampong* than we had ever observed. On the second day they had depopulated all the trees. Amongst the spoils which they seemed to prize most were two owls and a colony of bats. The latter they seized upon with great glee, carried at once to their house, broiled slightly, and devour-



Lith. at Pascher's Press.

PAWANG.

ed. Nothing being left in the kampong, I took them, next evening, along the Garden road, but they did not succeed in getting any birds, and this made them think Singapore a poor country. Some clumps of jungle on the hills beyond Mr. Caldwell's villa redeemed it a little in their eyes, and they were anxious to reach them, but disliked having to cross any swamps. I offered to give them a small plantation if they would remain in Singapore, pointing to the sugar canes and fine fruit trees in the Chinese plantations on the side of the road. They said they could not live where there was so little forest, and as for plantations they could make ladangs of their own in Malacca. They pointed to Syed Omar's and Mr. Dyce's hill, and asked what was the value of such a house with the hill and trees around it. When told that it might sell for 3000 dollars, they expressed the liveliest astonishment. Shortly afterwards, when Pawang was describing the mountains of his country, I asked him for what price the Mintira would sell Gunong Bermun. He hesitated, looked at Mr. Dyce's hill, and at last said, "sapulo gidong," ten godowns.

Of all the sights which they saw in Singapore, the Chinese Temple pleased them most. But after having visited the Town, Telloh Blángá, Segláp, and some other parts of the island, they declared that Malacca was a much finer place.

The three men differed considerably in disposition. The most remarkable was Páwáng, who displayed much sense and firmness in his character, and a slight degree of pride and reserve in his manner. He was looked up to by his companions as a man of superiour ability and knowledge, and his reputed skill in natural and supernatural medicines made him an object of much attention to the Malays in the neighbourhood, who invited him to their houses and visited him, to solicit herbs and charms. The women, in particular, regarded him as a magician of undoubted art, and many, on first approaching him, threw themselves at his feet. His head was decidedly intellectual in its formation.

Párut was a picture of indolence, good nature and content. He seemed to enjoy what the passing moment brought, without any intrusion of thought or care.

Tálá was also good natured and indolent, but more lively, and not without a little humour. He was exceedingly fond of raw brandy, and, when slightly elevated, danced, sung and played on his flute,—a piece of bambu with some holes in it. On the third evening he was seized with melancholy, his thoughts reverted to his absent wife, and he sat for some hours by himself, drawing plaintive notes from his flute, and singing of her, by turns, while the tears coursed down his cheeks. His temperament was much more excitable than that of the others.

The women were good natured, and one of them, Páwáng's wife, lively. While their conversation was characterized by an Old Testament simplicity and unreserve, their manners were, in every respect, modest.

The impression which they made upon every one who saw much of them was very favorable. In manners they were soft, simple, candid, and, at the same time, independent. Their whole conduct was marked by a tone of propriety and good sense. They shewed an entire absence of obtrusiveness, greediness, deceitfulness, intolerance or any other of the vices which so often mar the effect of the good qualities possessed by many of the races who inhabit Singapore. In a word, they were perfectly well behaved, and inspired a trustfulness and liking, which are not often awakened by Asiatics in the breast of the European.

Within a fortnight after I had wished them a safe voyage back to Malacca, and promised to visit Gunong Bermun under Páwáng's guidance, a rumour reached me that the trading boat which carried them away had been wrecked, and three of them drowned. This most painful intelligence has been confirmed, and the satisfaction which I had anticipated when bringing these notes to a close, from the hope that attention and sympathy might be drawn to the race, is embittered by the reflection, that the resolution of those simple friends to overcome their natural dread of the sea, has proved a fatal one to them. It appears that stormy weather was experienced from Pulo Pisáng to Pádáng. When off the latter place on the 14th. the boat being much damaged and the wind rising to a gale, the

Malays made for the shore. They had nearly reached it about 9 o'clock at night, when, dreading that the boat would be dashed in pieces, the crew prepared to leap overboard, and wade or swim to the land. Tálá and Páwáng's wife were afraid to do so, but his sister and Párut her husband consenting, Páwáng fastened them to himself by their waist bands, saying that they would live or die together, and then they all plunged into the waves. They sunk at once, for it was deeper than they had believed, and, the bottom being a stiff mud, they never rose again. Next morning, the Malays, who had succeeded in reaching the shore, saw the boat still holding together, and, on going to it, they found Tálá and Páwáng's wife alive in it. The survivors procured a boat, and arrived at Malacca on the evening of the next day.

THE ETHNOLOGY OF THE JOHORE ARCHIPELAGO.*

This Archipelago, embracing several hundreds of islets, besides the considerable islands of Battam, Bintang, Krímun, Gampang, Gallat, Linga and Sinkep,† is thinly inhabited by several interesting tribes. Some of these have already been slightly noticed by Dutch writers, but the greater part still remain, I believe, undescribed. The more important tribes are those termed collectively *Orang Pe-suku-an*, literally the people divided into tribes. They are all vassals of the King. Those of the highest rank, to whom distinct services are appropriated when the King goes to sea or engages in war, are the *Orang Bén-tán* under an *Ulubáláng*, the *Orang Singgéra*, under a *Batin*, the *Orang Kopét* under a *Jinnang*, the *Orang Bulu* and the *Orang Linga*. The other tribes, some of the land and some of the creeks or sea, are the *Orang Gilám*, *Orang Bekáká*, *Orang Sugi*, *Orang Muro*, *Orang Támbus*, *Orang Mántáng*, *Orang Kilong*, *Orang Timiáng*, *Orang Mnáu*, *Orang Pulo Boya* and *Orang Silat*. Besides these, there are some wild tribes in the interior of the larger islands.

Pulo Battam is the first of these islands, forming, in part, the southern side of the Straits of Singapore. Its creeks are frequented by prahus of several of the pelagian tribes, and in its forest three wild tribes are found. In the north western parts live the *Sabimbá*, who have been already described.‡ In the forest of the north eastern promontory wander a still wilder tribe, called by the Malays of Singapore *Orang Tréng Bumban*, from the Points of those names on the west and east sides of the promontory. The existence of this tribe was first brought to my notice by Mr. Simonides some time ago. I sent

* This we consider an appropriate name for that extensive Archipelago formed by the prolongation of the plutonic zone of elevation of the Malay Peninsula from Singapore to Billiton. The fact of its being so closely connected geographically with Johore as to appear a continuation of it, partially submerged by the sea, and the previous appropriation of the general Peninsular name *Malaya* to the Malayan Archipelago, would justify the adoption of the name. But the best reason for using it is the fact that these islands (with the exception of a few of the most southerly) formed the insular part of the kingdom of Johore from the thirteenth century to our occupation of Singapore 27 years ago.

† Banka and Billiton may also be considered as included in it. They are so geologically and ethnologically, although not geographically.

‡ Ante p. 295.

a Malay to make a vocabulary of their language, but he could not meet any of them. I have lately found a short notice of them in a Dutch work published last year, entitled "*Berigten omtrent Indie, gedurende een tienjarig verblijf aldaar*" by Mr. Rottger, formerly a missionary at Rhio. This I shall give afterwards, if I fail in obtaining a more complete account. In the south eastern part of Battam are found

THE ORANG MUKA KUNING.

This tribe inhabits the forests on the river Sa Raya or rather on its feeder the S. Muká Kuning, which joins it from the left, about five hours pull from the mouth of the river. After ascending the Muka Kuning about four hours, we reach Pankallan S. Raya, from which a five hours walk brings us to the kampongs of the Orang Utan or men of the woods.

The tribe consists of about fifty families, who live scattered in the forest in small huts beneath the trees, formed of a rude platform supported by four posts about three feet in height, from which the roof of sirdang leaves rises at once without any intervening wall. It is open at both ends, and has no ladder or door. The males mostly wear the *cháwát* of *tiráp* bark, and the females short sarongs of cloth. They do not cultivate any plants, or breed any animals save dogs. With the help of these, and with the sumpitan, *siligi* or spear of *nibong*, axe, hatchet, and knife, they procure their ordinary food in the forest, and rattans, dammar, and agala wood, which they barter for rice, cloth, implements, tobacco, and salt. The articles of food which they derive from the forest are the same animals and vegetables which the Orang Sabimba use (*vide ante* p. 296.) As with them, the fowl is forbidden food.

A Malay Batin, named Pájar, who lives on Pulo Loban, is entrusted by the Iám Tuán Mudá of Rhio with the charge of the tribe. He visits them from time to time, bringing rice and other articles, and receiving in return the forest produce which they have collected for him. They are prohibited from trading with other persons under penalty of a ducking.

For 1000 rattans they receive 4 gantangs of coarse rice ; for 100 dammar torches, 6 gantangs ; and for one basket ($1\frac{1}{2}$ feet deep and broad) of agila wood, 4 gantangs.

They have derived some obscure and distorted notions of a Creator from the Malays, and appear otherwise to have no religion or superstitions. Alláh Ta'álá (God) is the creator of all living things. Nábi Mahamad (the prophet Mahamad) is his wife, who destroys all living things. They dwell above the sky, and have two children, a male and a female, whose names and functions they do not know. They have no idea of the soul as separate from, or surviving, the body. It is probable that their belief in a male creating and preserving, and a female destroying, god was derived from Hindus or Hindu Malays in the antemahomedan era, and that they have merely altered the names ; a practise which appears to be common in the Archipelago, and one, indeed, of which the history of almost every nation furnishes examples.*

As soon as the breasts of a girl are of the size of a betelnut, she is considered marriageable. When a marriage has been agreed upon, the parents of the bridegroom send to those of the bride 3000 rattans, a piece of cloth, a jacket and two silver rings. The marriage takes place at the house of the bride, in presence of the Batin and several guests, and consists in the bride and bridegroom being placed

* In the eastern parts of Bengal, which, from their ethnological connection with the Hindu Chinese peoples, we shall have frequent occasion to refer to, instances of this kind occur. The successive changes which the religion of Europe has undergone were accompanied by a similar confusion of names. "The memory of the pagan [classic] creed was not speedily eradicated in the extensive provinces through which it was once universally received ; and in many particulars it continued long to mingle with, and influence, the original superstitions of the Gothic nations. Hence we find the elves occasionally arrayed in the costume of Greece and Rome, and the Fairy Queen and her attendants transformed into Diana and her nymphs. and invested with their attributes and appropriate insignia" (Sir W. Scott, *Introduction to the Tale of Tamlahe*.) "Christianity never succeeded in rooting out the ancient creed ; it only changed many of the subjects, which maintained, and do still to this day maintain, their place among us. What had been religious observance subsists as popular superstition ; the cross of the Saviour only replaced the hammer of Thor ; and the spells which had once contained the names of heathen Gods were still used as effective, having been christened by the addition of a little holy water, and the substitution of the names of Abraham, Isaac and Jacob, Tobit, St. Peter and St. Paul" (J. M. Kemble, *Introduction to the Anglo-Saxon Dialogues of Solomon and Saturn* p. 7.)

side by side, and made to join hands, while the parents enjoin them to be kind to each other and avoid disputes. A feast follows, at which the newly married pair eat from the same plate or leaf. Singing and dancing to the rabana follow. The Batin receives a present of 2000 rattans.

If a husband is not pleased with his wife, he may return her to her parents, and after the lapse of a month the parties may form other connections. Polygamy is unknown. The children of brothers cannot intermarry.

A Bídán or midwife assists at births, and receives 4000 rattans on the first occasion of the kind in the family, 3000 on the second, 2000 on the third, and 1000 on any subsequent birth. The only medicine administered is a decoction of the bark of the kayu pangar for the mother, and a decoction of the root for the child.

<i>Males.</i>		<i>Females.</i>	
Kélut	Májáh	Límpát <i>m.</i>	Pángél <i>m.</i>
Iras <i>m.</i>	Oko <i>m.</i>	Kássáh <i>m.</i>	Drás <i>m.</i>
I'bol <i>m.</i>	Awá <i>m.</i>	Ulu	Míná <i>m.</i>
Jáwák	Antas	Límá <i>m.</i>	Ríná <i>m.</i>
Léká <i>m.</i>	Níbor <i>m.</i>	Káté <i>m.</i>	Támá <i>m.</i>
Sáré <i>m.</i>	Té	Síjo <i>m.</i>	Bíná
Jalan		Jodo	Rábo

The dead are buried in graves near the house, $1\frac{1}{2}$ feet deep. A sum-pitan is placed on that of a male, and a knife on that of a female. In about a month after the burial, the family abandon the hut, and make another in a distant place.

The face of the only male of the tribe whom I have seen was lozenge shaped, and in this respect, and in the length and curve of the lower jaw and consequent shape of the lower part of the face, approached considerably to one of the Biduanda Kálláng, Náneng. From him however, and from all the other individuals of that tribe whom I have seen, he was distinguished by the advance of the lower part of the face from the nose downwards, caused by the projection of the upper jaw. In this respect he resembled the general Binua and Bermun type. The distinguishing feature of the Mintira,—the vertical

elongation of the upper part of the face,—was prominently marked. The distance from the zygomatic projection to the upper part of the forehead being 4 inches, and to the chin only $2\frac{1}{2}$ inches, measured on one straight line. The lips were fleshy, but much less gross than the Mintira, the eyebrows thick and inclined upwards, the eye large, soft but less lustrous than that of the Binua and Bermun tribes, the ear moderately large, the forehead very narrow but higher than in the Biduanda Kallang, the hair very thick, the shoulders and chest less broad than in the Biduanda Kallang.

REMARKS ON THE SLETAR AND SABIMBA TRIBES.

By J. T. THOMSON, Esq.

Hon. M. N. H. S. Newcastle-upon-Tyne.

In compliance with your request I send you a few notes on these tribes made during a late visit to the Old Straits of Singapore, when I came in contact with them. My duties have frequently led me to these parts, and my constant attention had been drawn to the fact of wild tribes existing in the creeks, and along the shores of the Strait above mentioned; but, notwithstanding all my anxiety to obtain an interview with any of them, my wishes had never been gratified. It is true that parties of the Slétar tribe had been often descried from the Gunboat, but we found them too shy and timid to allow of a near approach. This time we were more fortunate. A Panglima (i. e. Malay warrior) a notorious pirate, had been caught by one of the Tomungong's followers, who in former years had formed one of the crew of the Gunboat—elated with his success, he came to relate the circumstances of his bold feat; amongst these and other interesting matters regarding piracy, in which trade our friend had in former years even obtained honorable notoriety amongst his country men,—the wild men or Oráng Után were casually mentioned as being in the vicinity. The opportunity was not to be lost, and our friend, on certain conditions, agreed to bring several of their class to the Gunboat on the following day.

The next day, when anchored close to the shore, several small boats and canoes were seen skirting the mangrove, and slowly approaching to our anchorage; these proved to be two families of the Slétar tribe mentioned at the end of your article on the Oráng Binuá of Johore. I found after careful examination that they were known to the Malays as the “Oráng Után Slétar.” On their first approach one could not help being struck with the extreme squalidness of their appearance, united as it was to a dull insensibility to what was going forward, a marked contrast to their pert Malay conductors, who assumed over them an air of superiority and command, which is never witnessed in the latter when in the presence of Europeans alone, and affording at once,

I might say, a standard for judging of the place which the Oráng Slétar should hold in the ranks of civilization. The families consisted of two men, three women, and several children of both sexes; they were exceedingly shy at first, and could with great difficulty be prevailed on to speak, but by kindness of manner, and some trifling presents, the men were induced to throw off a considerable deal of their reserve,—so much so, that they daily visited the Gunboat, as long as we were in their vicinity, bringing fish and a few birds for barter, and a system of fair dealing being strictly kept up by the commander and his crew, on our leaving they promised always to visit the Gunboat, to supply such necessaries should she ever come in their neighbourhood again, and tell the people of their tribe to do the same. Our visit was productive of considerable benefit to them, as they were well supplied with many necessaries (luxuries to them) such as rice, tobacco and cloth. They took great trouble in procuring us what we were most in want of, fresh fish, and our parting we were led to believe, was attended with considerable regret on their side. On our better acquaintance, when asked why they used always to run away before the Gunboat, their simple reply was, that they were afraid we would carry them off to Gallang, a place noted for the fierceness of its pirátes, and for whom they bear a great dread.

On taking likenesses of two of them, a man and a woman, the man sat with great steadiness and composure, and seemed perfectly aware of its meaning; on finishing the sketch, and being shown the production, a slight smile was elicited:—with the other subject considerable difficulty was encountered, she at first hid her face beneath her shaggy matted locks, that strayed in wild abundance over her scaly shoulders, and would only now and then venture a glance at the operations of the pencil,—no persuasions would induce her to show her face, till at last her young child was given her, when in a position natural to the mother, the sketch book was soon made to bear what was considered a tolerable likeness of the original.

This poor tribe are River nomades, their locality extends from the Santee, at the east end of Old Strait or Sálát Támbráu to Pándás on the west. The Slétar, a creek of the Island of Singapore, and dis-

tant from the town only 8 miles, gives its name to the tribe, and is situated nearly in the middle of their range. They number in all 40 boats, or 200 people, and are subject to a Batin or petty chief whose names is Keding. Their de facto sovereign is the Tomungong of Johore, who can command their services in the manner of a feudal lord. Their language is the Malayan, and considerable pains was taken to elicit any words foreign to that language, but without effect. Their dialect is the same as that of the Oráng Laut of Tulloh Blangáh, but spoken with a slightly more guttural accent, and they clip their words as much as the natives of Keddáh. As a proof of their possessing the same language as the Malays, I may mention that the children were heard when playing to converse in this language, and were perfectly understood by the Malays amongst our crew. They are possessed of no weapons either offensive or defensive; their minds do not find a higher range than necessity compels, the satisfying of hunger is their only pursuit, of water they have abundance without search; with the serkap or fish spear, and the parang or chopper, as their only implements, they eke out a miserable existence from the stores of the rivers and forest; they neither dig nor plant, and still live nearly independent of their fellow men, for to them the staple of life in the east, rice, is a luxury; tobacco they procure by the barter of fish, and a few marketable products collected from the forests and coral reefs. Of esculent roots they have the prioh and kalana, both bulbous, and not unlike coarse yams, —of fruits they eat the támpui, klédáng and búroh, when they come in season, and of animals they hunt the wild hog, but refrain from snakes, dogs, guanas and monkeys. Such are their principal means of subsistence, for many minor products of the forests and creeks must be left unmentioned.

On their manners and customs, I must needs be short, as only long acquaintance with their prejudices, and domestic feelings could afford a clue to the impulse of their actions. Of a Creator they have not the slightest comprehension, a fact so difficult to believe, when we find the most degraded of the human race in other quarters of the globe, have an intuitive idea of this unerring and primary truth imprinted on

their minds, that I took the greatest care to find a slight image of the deity within the chaos of their thoughts, even however degraded such might be, but was disappointed. They neither know the God nor Devil of the Christian or Mahomedan, though they confessed they had been told of such, nor any of the demigods of Hindoo mythology, many of whom were recounted to them. In the three great epochs of their individual lives, we consequently find no rites or ceremonies enacted; at birth the child is only welcomed to the world by the mother's joy; at marriage, a mouth full of tobacco and one chupah of rice handed to the mother, confirm the hymeneal tie. At death the deceased are wrapped in their garments, and committed to the parent earth. "The women weep a little, then leave the spot" were the words of our simple narrator. Of páris, dewás, mambáangs and other light spirits that haunt each mountain, rock, and tree in the Malayan conception, they did not know the name,—nor had they any thing to be afraid of, as they themselves said, than the "Gál-láng Pirates," who are men like themselves. With this I was forced to be contented, and teased them no more about the subject. They do not practice circumcision, nor other Mahomedan customs. Their women intermarry with the Malays which appears to be not unfrequent, they also give their women to Chinese, and an old woman told us of her having been united to individuals of both nations, in an early period of her life. It was further related to me, that many years ago, when they had a Malay as their Batin, nearly all the men now of their tribe were induced to undergo the rite of circumcision, though such a practice is not comformed with. Their tribe though confining their range within the limits of 30 miles square, may still be considered of a very wandering kind; in their sampans barely sufficient to float their load they skirt the mangroves, collecting their food from the shores and forests as they proceed exhausting one spot and then searching for another. To one accustomed to the comforts and artificial wants of a civilized life, theirs as a contrast appears to be extreme; huddled up in a small boat hardly measuring 20 feet in length, they find all the domestic comfort that they are in want of; at one end is seen the fire-place, in the middle are the few uten-

sils they may be in possession of, and at the other end beneath a kadjang or mat not exceeding six feet in length, is found the sleeping apartment of a family often counting 5 and 6, together with a cat and dog, under this they find shelter from the dews and rains of the night, and heat of the day. The Malays even in pointing out these stinted quarters cried out "how miserable," but of this the objects of their commiseration were not aware; in them they have provided all their wants; their children sport on the shore in search of shell fish at low water; and during high water they may be seen climbing the mangrove branches, and dashing from thence into the water, with all the life and energy of children of a colder climate, at once affording a proof that even they have their joys.

Their personal appearance is unprepossessing, their deportment lazy and slovenly, united to a great filthiness of body; the middle of both men and women is generally covered by a coarse wrapper, made from the bark of the Trap tree; this extends from the naval to the knee. The women affected a slight degree of modesty at first approach, which soon gave way. Instead of the wrapper of Trap, they frequently put on instead, an old patched up Malay sarong. The locks of the men are bound up with a tie of cloth, and sometimes by the Malay saputangan, those of the women fall in wild luxuriance over their face and shoulders. Their children go entirely naked until the age of puberty. Several of the men and women we afterwards saw, were subject to deformity in hands and limbs, a rather unusual circumstance for these parts, and their prevailing disease, was a cutaneous eruption, that covered the whole body with a scaly covering called Korup by the Malays. To this whole families were subject from the mother to the infant at the breast. With this disease nearly every other person appeared to be afflicted. The fingers of such poor creatures were seldom at rest. A species of leprosy also appeared to attack the feet of the old, and the features in the face in one or two cases were found to be contracted from some such disease, rendering those subjects hideous in appearance.

Upon the origin of the tribe little light can be thrown, for of their possession of traditions or superstitions after much enquiry I could

find no trace, but before much can be said on this subject great caution must be used, as is well known to those who have to sift evidence, from wild, ignorant and indolent tribes, and who alone can estimate the difficulty of gaining a correct notion of the peculiarities of their ideas on such points. It is therefore to ethnographical enquiry that we may expect to be indebted for any slight glimpses of this interesting topic. As I before stated they speak the language of the Malays with much less a degree of difference in pronunciation, than may be found in stepping from one county in England to another. They may therefore be said with little fear of contradiction to be merely unconverted Malays in the general acceptance of the term, though a distinct class from the Malays properly so called, who poured their hordes over the Archipelago* prior to 1200 of the Christian era from the great river Malayoo in Sumatra. While all the tribes of Malays on the coast of the Malayan Peninsula, and adjoining islands have embraced the tenets of Mahomed, they have remained unaffected by the movement. The nomenclature of individuals, remains the same as when Hindooism held sway over the Archipelago, and we find in their proper names an astonishing degree of similarity to the names of Malayan heroes prior to the conversion of the race as mentioned in the *Sijarah Malayu* and other works.† As a list of proper names will be interesting, the following is a small collection.

Males.

Kissah	Dosan	Kadang	Penis	Singal
Kosan	Kassap	Masei	Awin	Desan
Nassap	Nosan	Sadang	Soning	

Females.

Nongei	Sookang	Boon teh
Neekang	Sang Kang	Impang

In physiognomy they are closely allied to the “*Biduanda Kallang*” noticed in your paper on that tribe. This coupled with the fact that the Sletar and Kallang are both creeks of the island of Singapore, the original locality of each, and that sampans can approach the na-

* Query ? ED.

† ? ED.

vigable part of either creek within two miles, there need not be any hesitation in proclaiming their identity of origin, though now they live as separate tribes. The most distinctive features of the tribe are, lowness of brow, retreating backwards, from the superciliary ridge, a protrusion of the lower part of the face, not in the manner of prognathous tribes but by the acuteness of the facial angle, in illustration of this the profile of a boy of 12 years of age is appended, drawn from the living subject who possessed the distinctive type of the race in an exaggerated degree. When viewed from the front they are found to possess an obliquity of eyes and eye brows, the eye lids being much closed and only showing half the pupil. The general contour of the face, obtains a decided character, by great breadth of forehead, expansion of zygoma, and rapid tapering to the chin which is lengthly and narrow. The nose is depressed and mouth moderate. Such may be considered the distinctive features of the race, though many were seen possessing the Malayan type strongly marked.

The Orang Sabimba now remain to be noticed, and as an apology for the paucity of remarks and the errors that may be detected, I must mention that the morning on which I visited them it rained in torrents, which entirely prevented my reaching their encampment. It was therefore in a miserable Malay hut that I collected several of their number who were accidently on the spot, and to whom I am indebted for the following notes and information, though I am by no means satisfied with the result.

Their physiognomy is of an entirely different type from the tribe already discussed, and they also differ as much in habits and customs. They are forest nomades, being in possession of no boats or canoes of the most simple construction, and regarding the water with a degree of terror, as already mentioned in your notice of them. To the sumpitan as their principal weapon they owe all that they can obtain of the animals that live in the trees of the forest, and with their dogs (a species of Pariah) they hunt the wild hog. Their food consists of rice as the staple article, but they add to this the flesh of the hog, monkey, snake and ape, birds of all kinds excepting that of the fowl, for the reasons stated in your paper. They also abstain from

planting, and consequently their vegetables consist of the wild fruits of the jungle. This tribe is much more helpless than the Orang Slétar, being entirely dependant on the Malays for their arms and the greater part of their food. The sumpitan is the same as that used by the Dyaks of Sambas in Borneo from whence it is imported to Singapore, and from thence finds its way to Tambrau the river on which they are now located. The arrow of this is delicately fashioned, but the orang Sabimba make a ruder description themselves. The arrows are poisoned with the juice of the Upas tree, and is called ipoh. The tribe, consisting of 80 individuals young and old, are now employed in cutting rattans for the Malays who furnish rice, weapons and utensils in return; they hinted to me that they were a Boolang tribe, but appeared to have no distinct recollection of the period they had been deported from that island. The tribe is separate from all other tribes in the Peninsula, and the territory over which they now roam is unoccupied by others. They are unacquainted with the decoction of inebriating liquors, though they informed me that the tribe formerly possessed the art, their habits are therefore as temperate as the Malays. They do not intermarry with the Malays nor will they part with their offspring for any consideration; towards the Chinese they bear great detestation removing always from their vicinity; this fact may be accounted for by the smallness of their numbers and from the wish to avoid the extirpation of their race. Their Batin or chief is named Bintang, and they owe fealty to the Tomungong of Johore.

They are equally atheistical with the Oráng Slétar, nor are they imbued with any of the superstitions of the Malays; of ghosts and witches they were ignorant, a fact difficult to believe. Of marriage ceremonies I was told they had none; the preparation of a shed, open on all sides, in size 6 feet by 4, covering a few sticks and leaves strewn on the ground, comprises all the bridegroom's care; the price of a wife was stated to be 10 needles, 3 hanks of thread, 16 cubits of cloth and 3 reals. On any of their tribe being near death they leave this hut until they think all is over; they then remove the corpse on a plank shrouded in its clothes to a grave in which are buried toge-

ther the utensils of the deceased such as sumpitan, cooking utensils, parrangs, bliongs, &c. ; these they place at the side ; they then leave the spot and wander to other parts. The above account differs slightly from your own which shows that they are not guided by strict rules in the case of deaths and marriages.

Their language is the Malayan, spoken with a peculiar accent ; whether or not they originally spoke another language I cannot offer an opinion. Their primary words are all the same, so it is probable that they speak the language unmixed with Arabic, but deeper research is required on this subject ; an acquaintance with the philology of the Archipelago, might throw many interesting facts open to the world ; your extensive enquiries on this subject will therefore be looked for with impatience. Their proper names differ entirely from the Slétar tribe, and are slightly mixed with the Malayan,* the following is a list.

Males.

Lodang	Solai	Ayin	Bootoon	Bintang
Jalee	Serong	Nipis	Rama	Talei
Angin	Rinnah	Bangas	Kassar	Kassaw
Oomboo	Deman	Mooloot	Looioot	Pang

Females.

Recnee	Tawei	Meenah	Aisa	Tengah
Bookit	Teemah	Nareemah	Mungee	Dyang

A copious list of proper names I would suggest as forming a criterion of what races they have been in contact with, and as not the least important of the branches of ethnological enquiry.

The personal appearance of these denizens of the forest is, to say the least, pleasing ; well formed features in the young and a contented placidity of countenance in the old, would at once show them to be an improveable race ; unshackled with the dogmas of the Islam and infantine in their preception of all things, they stand as it were on the threshold of such a faith as christianity presents in its primitive, most humble, and purest form, but they have no one to invite them in. It

is such races as these that call for missionary enterprise. Their close relations with the Malays have given them a taste for dress, as I found them wearing cloth instead of the bark of trees. The women were dressed in sarongs in the manner of Malayan women, but the men only wore a strip of cloth of scanty dimensions, round the middle and passing between the thighs. Their address was open and simple, their demeanour respectful. The Malays spoke of them as being little better than baboons, and treated them as a much inferior class to themselves. The Malay women of the house in which I was afforded shelter commanded their less fortunate sisters in a manner not to be mistaken, and this was allowed as a matter of course; it afforded considerable amusement to see how the Malay women placed the arms, straightened the face, and directed the eyes of the female subject of my pencil, and when they had placed her in a position pleasing to themselves they sat themselves where they could best gratify their own curiosity.

Their physiognomy you have already described: the reader is therefore referred to the plates annexed to this paper for further information.

Plate No. 1. represents six heads of the river nomades, and though coarsely executed they may still be offered as correct portraits of the originals. Fig. 2. gives the facial outline and skull of a Boy of the Sletar tribes who possessed in rather an exaggerated degree the marked peculiarities of the physiognomy of his race, and in order to render such peculiarities palpable to the eye of the observer I have enclosed the outline within a square constructed in the following manner. The lower containing line of Camper's celebrated facial angle drawn through the meatus auditorius to the base of the nose is taken as a basis, this line is produced either way until lines at right angles to it touching the posterior and anterior parts of the head and face will intersect it. The line contained between those points of intersection is then bisected and upon it are formed four equal squares, two enclosing the superior part of the head and two the inferior and together making the large containing square above mentioned; three of these squares are again divided each into one hundred equal parts, and,

for the sake of clearness, those small one-hundreth parts are only shown on such parts as are not filled up by the outline of the head. Again should the head reach beyond the square as in the case of fig. 1 extra squares are created to contain it. By careful measurement the relative proportions of the head may thus be reduced to numbers with mathematical correctness, and as the higher front square contains the front of the skull and upper part of the face it may be denominated the superior anterior square, the higher back square will be named the superior posterior square and so on, and by finding the number of 100ths. contained in each square the relative proportions in numbers can at once be ascertained; thus in figures No. 1. 2. 3. and 4. the proportions will be found as follows,

	Anterior Sup. Sq.	Posterior Sup. Sq.	Anter. Infer. Sq.
Fig. 1.	. 88	1. 01	. 56
" 2.	. 71	. 92	. 62
" 3.	. 60	. 90	. 50
" 4.	. 44	. 90	. 85

which would place the Orang Slétar intermediate between the European and Negro in expansion of the organs of intellect, and again shews them to possess a greater developement of the jaws and "organs subserviant to sensation and animal faculties than either."* The drawing of the Mias, sometimes called Orang Utan in this country and commonly Oráng Outáng in Europe, is given to show the wide difference between it and the subjects of this paper, who are generally known to the Malays as Orang Utan, thus confounding them with the lower creation. The above mode of measurement is not given as the only one required to ascertain the physical peculiarities of the skulls of races, but only as a simple method of rendering palpable to the most unpractised eye, the differences of configuration of the outline, and its principle can also be applied to the other modes mentioned by Dr.

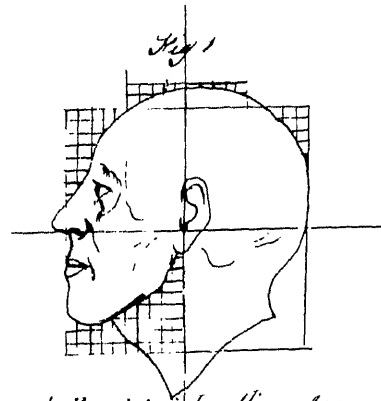
* Prichard's Natural History of man.

352* REMARKS ON THE SLETAR AND SABIMBA TRIBES,

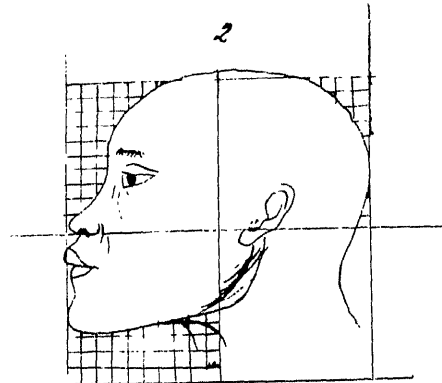
Prichard, as practised by Professors Blumenbach and Owen, the former measuring the area of the skull when looked upon vertically, and the latter the basis or under surface of the cranium after the lower jaw is removed, but both of which methods there is seldom opportunity to practice for sufficiently apparent reasons.

Plate No. 2. represents the facial outline and skull of a man and woman of the Sabimba tribe.

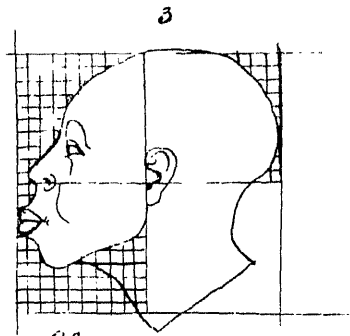
PLATE I.



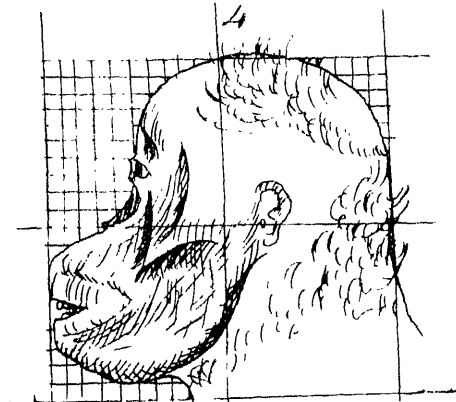
The skull and jaw outline of an
Ordinary European
from Martins' *Nat Hist of Man & Monkeys*



Of a boy of the Orang Sletur
drawn from nature



Of a young negro
from Martins' *Nat Hist of Man and Monkeys*



a young Mias or Orang Outang
drawn from a dead Specimen



Biduanda Kallang



A young man of the Orang Sletur



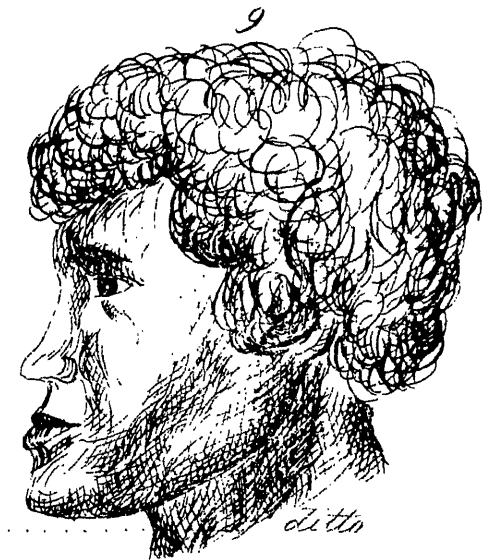
Woman of the Orang Sletur



Man of the Biduanda Kallang



ditto



ditto

EXAMINATION OF THE COAST OF THE MALAY PENIN-
SULA FROM PULO MUTIARA TO PULO PANJANG
IN SEARCH OF COAL DEPOSITS, IN
NOVEMBER 1847.*

By CAPTAIN CONGALTON,
Commander of the H. E. I. C. Steamer "Hooghly."

On the 29th of October, Colonel Low having embarked, I steamed from Pinang harbour to the northward, passing within the Lánkái Group of Islands, and at 3 p. m. on the 30th came to an anchor in 2 fathoms' water on the east side of Pulo Mutíará in Lat. $7^{\circ} 21' N.$, for the purpose of sounding across a spit of sand that runs out from the main land, and forms a low point on the east side of the island. On the 31st. we examined Pulo Mutíará with the boats at low water, but nothing that indicated coal was to be seen. On the afternoon of the 1st November, finding there was just water enough for the Hooghly to cross the spit of sand, I steamed to the northward for seven miles, until we deepened our water to 4 fathoms, close to very high limestone rocks. We anchored here for the night. Early on the morning of the 2d. I manned two boats, Colonel Low proceeding in one, and myself in the other: and pulled in different directions for the main land, when several miles of coast were examined. The water along the coast here is very shallow, with a clear sandy bottom. The land for some distance in, is sandy and the jungle is not very thick, the trees

* On this occasion Captain Congalton was accompanied by Colonel Low, who has briefly communicated the general results to the Honble the Governor, and whose more detailed description of the geology of the coast we shall expect with great interest. The examination of the numerous rock specimens collected will be a work of some time. The present paper is extracted from Captain Congalton's report to the Honble the Governor, to whom we are indebted for the use of it. As neither Captain Congalton's report nor Colonel Low's letter convey the information which is requisite to form a correct judgement of the probability of coal existing in considerable deposits, (see our remarks on this point, ante p. 167) it is necessary to add, in the absence of all details respecting the composition, thickness, strike and dip of the associated strata, that Colonel Low takes a much more favorable view of the recent examination than Captain Congalton. He considers that two years would be required for a thorough exploration of the coast, of which only three or four points have been examined, and he thinks it is very probable that the whole of it, from the latitude of Purlis to that of Phúngá, is either one coal field, or a succession of coal deposits.—E.D.

being mostly what the Malays call Káyú Glám. The trees grow at a good distance from each other, with little or no underwood. Here, I am sorry to say, no indications of coal were to be seen. On the afternoon both boats met, when we returned to the Steamer, weighed and steamed to the northward, passing Sungei Káyú Kamuníng, which, on a former occasion, I had visited with Colonel Low in the boats of the Hooghly.

At 4 P. M. we came to in 2 fathoms water, about a $\frac{1}{4}$ of a mile off a point of land called Tánjong Pátong.* This point is rocky, of moderate height, and has the appearance of an Island, but it is joined to the low swampy land on the coast. It was here that the Gunboat got the sample of coal [described ante p. 160.] This point lies in Lat. $7^{\circ} 37' 12''$ N., and is distant from the Fort Point at Pinang 155 miles, in about a N. N. W. direction. On landing on Tánjong Pátong, we found several Siamese, who stated they had been sent from Tráng, by orders from the Rajah of Lígor, to collect all the coal they could get, and send it across the country from Tráng to Lígor, as the Rájáh required the whole for his own use. They then enquired if we had come to take the coal, adding that they had orders to guard it. When I demanded to see the Rájáh's written orders, they said they had none. I then told the head man that I would not give him or any body else one Dollar for all the coal I saw in their boats or on the point, but that, as I was now here, I intended to dig a hole and see if there was any coal underneath, what they were picking up being nothing but black stones which would not burn. They said, if that was the case, they would not remain any longer, but return to Tráng. After clearing away a space of variegated Flag stones, I ordered the crew to commence digging a large square pit, a little below high water mark, through a stiff blue clay. This pit we continued digging through the stiff blue clay, which gradually became harder, until it changed into a hard gray sandstone, with, here and there, thin black streaks, like blades of Buffaloe grass. During the digging of this pit the water constantly kept oozing in all round, so that the

* In the Charts the places where coal has been found are marked C.—ED.

crew were obliged to knock off every ten minutes to bail it out. After digging to the depth of seven feet, this clay got so hard that pick axes and jumpers made but little impression on it, as it then seemed to form into a kind of gray sandstone. Having carefully examined this point all round, I found that it is composed, on the east side, of Iron stone, sandstone and two small sandy bays. At the north end it is composed entirely of layers of gray sandstone, lying nearly in every direction of the compass. About 200 yards to the southward of the North Point, and on the west side, there is a small sandy bay or rather bay of sand and broken shells. This bay extends about 300 yards north and south, and at its southern end a ridge of sand stone commences in the face of the small hill about 15 feet high which is washed by the sea at high water. Immediately abreast of this sandstone, to the westward, and extending about 200 yards in a north and south direction, is a layer of the party coloured flag stones before mentioned, underneath which lies the coal imbedded in a strong blue clay. After breaking the upper layer of flag stones, which is easily done from its being mostly hollow underneath but more so in some places than others, the coal is seen, lying in an east and west direction, and exactly resembling trees at different distances from each other.* On applying pick axes or crow bars it easily gives way, breaking off in lengths of from one foot to nearly 20 inches. But it is only on the upper part of these apparently fallen trees that coal is to be found, varying in thickness from one to three inches. The heart of the tree is a mixture of hard stone. But in most of these trees nothing is to be seen in the shape of coal, in the lower part, which is nothing but a mixture of blue clay, the same as that which lies under the reddish flags. These trees do not extend down to the outer extremity of the rocks at low water, but were only met with when the side was at half ebb. It was only on this small space of 200 yards that they were to be seen, and I can with safety state that now no more remains on this spot.

* We declared (ante p. 162) that the coal of this locality was lignite and lapidified lignite, and considered "highly bituminous jet" a more appropriate mineralogical name than cannel coal for the most inflammable specimens.—ED.

On asking the headman of the Siamese in Malay, if he could point out any other places where coal was to be found inland, he said he could not, and that he had never heard of any one else having seen any. I then asked him if he knew if there was any to be found on any of the larger islands outside, telling him, at the same time, that I did not care whether he informed me or not, as I was going to the whole of them to examine them myself, and to look after pirates at the same time. After giving him a small present of Java tobacco and two bottles of brandy, he acknowledged that there was some on the next Point to the northward, Tánjong Bombong, distant about 6 or 7 miles.

On the morning of the 3rd I manned two boats and went to Tánjong Bombong with Colonel Law. It being nearly high water when we arrived, we landed on the north part, where there is a beach of coarse sand and shells, with a small plain behind covered with Buf-faloe grass. We found this point to be of a circular form with a few trees only on its side, which connect it with the low swampy main land. On returning to the S. W. part we found the tide had fallen greatly, which exposed a reef extending to the S. W. On the top of this reef, which is mostly formed of sandstone, there appeared to be a bed of coal, lying in a N. W. and S. E. direction, in extent 100 yds. This is also to be found at half tide. In using crow bars the stone gave way, but not so readily as that on Tánjong Pátong. Unfortunately we found nothing but sandstone underneath, with a thin layer of what resembled coal on the top, $\frac{1}{8}$ th. of an inch thick. At only two places what resembled trees like those on Tánjong Pátong were to be met with, but without the red flag stones overlying. After having broken the black crust, it appeared as if the rock had been paid over with hot pitch. Here we picked up what samples of coal we could, and returned to the Steamer.

On the morning of the 4th. finding that nothing more in the shape of coal was to be found in this vicinity, we steamed out towards the south end of Pulo Lontár. On reaching it I manned all the boats, and despatched them to examine Lontár and several other small Islands on its east side. In the evening the boats returned without

having found anything like coal. Lontár is composed of red rotten rock on its south and west sides, and a large track of low swampy land, running north and south, in the middle, and high lime stone rocks on its N. E. end.

On the morning of the 5th. we steamed round the south end of Lontar, and stood to the north towards Támara, Colonel Low having been informed by natives that Coal was to be found close to the westward of the place from which I had formerly brought some black specimens. In the afternoon we arrived at Támara. Early in the 6th. I manned the boats and went on shore, Colonel Low going towards Támara, and I round Tánjong Putrí. In the afternoon both boats returned, having found no traces of coal. Tánjong Putri is entirely formed of very high lime stone rocks, and numerous high rocky Islands stretch from it in a northerly direction towards Pungáh, where there is a Siamese Rájá, who exports Tin to Pinang in large quantities.

On the morning of the 7th. we started from Támara and steamed towards Pulo Pánjáŋg. We came too on its east side, towards the south end, and despatched all the boats. In the evening they returned, having found no coal. This Island is high and rocky down to the water's edge, with, here and there, a small beach, sandy, but with a rim of coral at low water.

On the 8th. we left Pulo Pánjang and steamed to the S. E. towards Pulo Bouton to examine that Island. On the 9th. early in the morning, bad weather set in from the westward with a perfect deluge of rain, which prevented my approaching the island so early as I could have wished. It cleared up a little in the afternoon, which enabled me to run in under the N. E. end, and anchor in 24 fathoms. Here is the only landing place I could see on a small sandy beach, the three larger Islands having steep rocks down to the water's edge on which the sea was breaking heavily. Colonel Low landed here, and, on his return at 7 P. M. told me he was perfectly satisfied that no coal could be found in Bouton.

On the morning of the 9th. we weighed and stood to the eastward between Láukáwí and Pulo Trotto, and came to an anchor in 2 fa-

thorns close to 3 small Islands where one of Colonel Low's men said he got the last specimens of coal. On the morning of the 10th. we went in the boats to the easternmost of a group of small rocky islands on the mud bank to the northward of the Purlis. It being then low water spring tides, and Colonel Low's man being with us, I made him point out the place where he picked up the coal. I sent my men into the water (it being only 2 feet at the time) with empty gunnie bags to pick up all the coal they could get before the tide rose. They succeeded in picking up four gunnie bags full, but the tide rising, we returned to the Steamer, and on emptying the bags on deck, I found the coal was covered on all sides with mud and barnacles. After having it well scrubbed and washed, I found it to be of the same kind as that which we had picked up at Tánjong Pátong. This leads me strongly to believe that it must first have been picked up at Tánjong Pátong by some prahu on its way to Pinang, and the prahu having either got on shore on an extensive sand bank on the east side of the Island, or on a reef of rocks on the west side, must, at high water, have got into the small cove, and thrown it over board. I am the more led to believe this to have been the case, because, 1st. this coal had barnacles on all sides, which was not the case with what we picked up at Tánjong Pátong; 2nd. having gone on shore again in the evening at low water, taking a dredge with me which I had made at Pinang for such purposes, nothing in the shape of coal was to be dredged up, on either side of the sand bank, nor even over the spot where the coal was found in the morning; and, 3rdly. on the following morning, all the other small islands which are close to, and of the same formation as, the one I have marked Low's Island in the sketch, were carefully examined by Colonel Low, with all hands from the Steamer, and no coal could be found at low water.

I know nothing about geology, and I have no doubt that Colonel Low will be able to give a more satisfactory explanation regarding this coal than I can. At the same time I beg to state as my candid opinion that there is not two bushels of coal more to be found on any of the Islands that we have visited; and nearly the whole of the other numerous Islands that have not been visited (with the exception

of Junk-ceylon) are either low and swampy, or else high lime stone rocks, so that little or nothing can be expected from them.

Such is Captain Congalton's very lucid narrative, and although our gallant friend has more experience in breaking fleets of Lánun pirates than rocks, and we have to regret the absence of geological details, we must not omit to mention that, mindful of our wants, he made an excellent collection of specimens. We intended to have given an account of these as an appendix to his report, but considering that we could hardly do so without, in some slight degree, anticipating Colonel Low's observations, we refrain. Although we are thus prevented for a time from availing ourselves in the way we could have wished of Captain Congalton's fine specimens, we would take the opportunity, which his kindness affords us, of begging that those of our readers who may have similar opportunities of procuring rock specimens from any of the numerous unexamined localities around us, will bear our wants in mind.—ED.

Sketch of the Coast & Islands

N^o. 1 OF PURLIS

Examined for Coal

November 1847.

Surveyed by

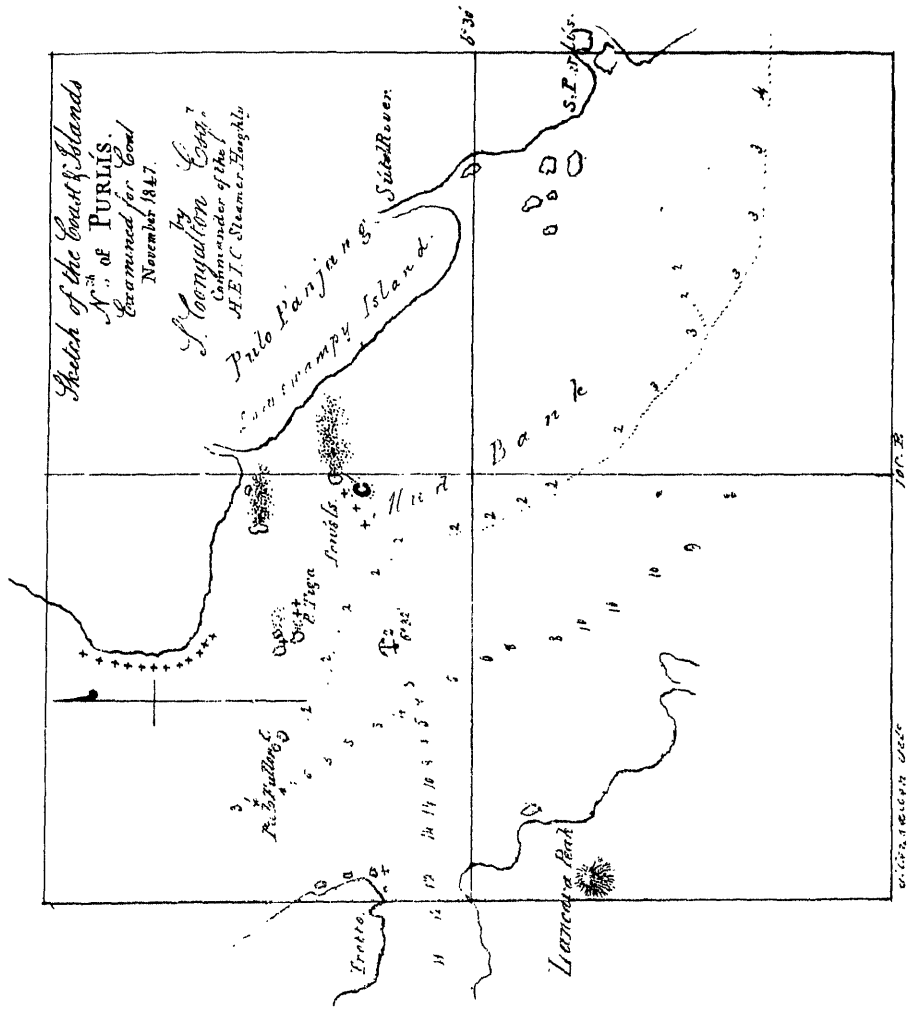
J. Macdonald Esq.

Commander of the

H.E.I.C. Steamer "Hagley"

Pulo Panjang & Sibun River

Pulo Panjang Island.



1. The first part of the document is a list of names and titles, including "The Hon. Mr. Justice" and "The Hon. Mr. Justice".

GREAT EARTHQUAKE IN JAVA.

6TH. DECEMBER.

Since this number of the Journal was printed, we have received accounts from Batavia of a severe Earthquake which was experienced there, and over an extensive region in Java, on the 16th. of last month (November.) As this earthquake appears to have been (with one exception) the most severe that has been experienced for thirty years, we lose no time in laying before our readers the following details, translated from the *Javasche Courant*. They are preceded by some notices of previous subterranean disturbances.

In the *Courant* of the 27th October, it was mentioned that a shower of ashes had fallen at *Buitenzorg* on the night of the 17th, which it was supposed had proceeded from the crater of the Gede. It now appears that it was not the Gede, but the Guntur mountain, in the Regency of Limbangan, residency of Preangar, which was working. On Sunday the 17th October, at 11 o'clock P. M., three earthquake shocks, following each other in quick succession, were felt at Tijandjur, the first of which was very strong, and lasted for fully ten seconds. The shower of ashes began to fall the same night, and on the following morning had already clothed the earth, grass, trees, and buildings with a brown covering. The fall of ashes and sand lasted the whole day, and made it very inconvenient to be in the open air. Persons who were travelling experienced from it a very disagreeable attack in their eyes.

The earthquakes had not wholly stopped at Tijundjur on the 29th October. The mountain had, however, fortunately begun to be at rest, and no damage had been caused by the eruption. The shower of ashes had reached as far as the frontiers of the residency of Bantam, a distance of more than 80 miles to the westward of the place of the eruption.

On the 3rd Nov, a guard house at Samarang was struck by lightning, by which three natives in it were killed, and other two severely hurt.

GREAT EARTHQUAKE OF THE 16TH. NOVEMBER.

On the forenoon of the 16th November, two very heavy shocks of earthquake took place at Batavia, the one about 10 $\frac{1}{4}$ and the other about 10 $\frac{1}{2}$ o'clock. It is stated that, with the exception of that of October 1834, this is the heaviest earthquake that has been felt at Batavia during the last 30 years. But notwithstanding, no great damage has been caused by it; in some government buildings the old cracks caused in 1834 have re-appeared, while the walls of different private buildings have also been split.

The spire on the council house at Batavia appears to have suffered from the shock, as it now inclines to one side, while the figure placed on the iron cross of the side building is totally bent down, and the cross itself inclines to the left. Some think that they observed three shocks, but one of them must have been very slight, as generally only two shocks were left.

We can only give the following, amongst the reports received, which has been communicated to us by the Rear Admiral Van den Bosch:—

“ During the earthquake which took place on the forenoon of the 16th, the Rear Admiral was just standing at the time ball, where the following observations were taken on the astronomical clocks.

“ The first shock took place at 10h. 18m., being a shivering, up and down, which lasted about 8 seconds, and in consequence of which the clock of *Hakvie* No 12, which stood on a pedestal fixed in the ground, sprung forward 25 seconds, while the clock of *Knebel* No. 60, having gradually decreased in its motion, stopped in 3 minutes afterwards.

“ At 10h. 25m. the second shock took place, in the direction of east towards west, more heavy than the first. It had no influence on the clock of *Hokvie*, which stands east and west, while the clock of *Knebel*, which had previously been again set agoing, did not stop.

“ Nothing remarkable was observed in the state or movements of the river.

“ On the island Onrust the two shocks were observed at 10h. 16m. and at 10h. 22m. continuing for about 4 seconds. The second was

also considerably heavier there. Their direction was about E. S. E. and W. N. W. The barometèr shewed 761. 4 lines, the thermometèr 26. 5 degree Celsius. It blew a gentle breeze from the S. W. It is remarkable that although the second shock took place at the same moment at Onrust and at the time ball, the first shock was felt two minutes earlier at Onrust.

“Private reports from Buitenzorg mention that the earthquake took place there about 10h. 30m., and that three heavy shocks were felt following each other at intervals of 3m. and 10 minutes, without causing any other damage than that some pillars were cracked.

“At Legok Njenang, on the south side of Gunong Gede, the earthquake was very heavy; in the morning three severe shocks were felt there, and during the whole day lighter shocks, principally in the evening about 6 o'clock.”

In the Preanger Regencies, principally in the Residency of Cheribon, the shocks of earthquake were very severe, and lasted for a long time, and much damage was done.

In the most eastern part of the Preanger Regencies, and principally in the residency of Cheribon, the shocks were very heavy. In the latter Residency they occasioned great damage. They were also felt in the Residencies of Banjumas, Kádu, Samarang and Rembang. In the residency of Tagal also some, though not severe, damage was done.

In Cheribon the earthquake was first felt about 15 minutes to 11 o'clock; the first shock was very heavy, and was speedily followed by a lighter one. At 3 minutes after 11 o'clock there was so heavy a shock that very few buildings were able to withstand its force. From this until midnight other thirteen shocks were experienced, three of which were very heavy; the first lasted about thirty seconds, and the third exactly 61 seconds. The plain before the Residency office was filled, in the twinkling of an eye, with all the inhabitants of the neighbouring houses, and soon experienced such a severe undulation that many could scarcely keep their feet; the direction of the waves was invariably from the southeast the northwest; sea shocks were not felt.

From midnight to 6 A. M. of the 17th, nothing was felt save a light

trembling, but on the 17th, at 6 o'clock, the shocks began again with renewed force, and between that hour and 10 in the forenoon nine shocks had taken place, of which one lasted 31 seconds.

Some details of the loss follow:—At the capital of Cheribon all the Government buildings (with the exception of the store houses) and more than 200 private stone dwellings were severely damaged and mostly rendered uninhabitable, in consequence of which no one durst remain within doors during the night, and all passed the night on the plains in the town, or in the gardens. A Chinese dwelling in the city fell down. One person was killed and six others hurt.

At *Palimanang* the Commandant's house and other stone buildings in the fort were severely damaged, and some personal injuries inflicted,—the wooden dwellings suffering no injury of any consequence.

At two neighbouring sugar factories great havoc was done, the buildings of all sorts being thrown down, and several lives lost.

At *Dana Radja*, *Radja Galu* and *Pamankiran* many buildings were destroyed.

Almost all the post stations are severely damaged; many stone watch-houses along the roads were thrown down; and even the mile stones along the great road fell over.

At *Indramayu* the first shocks caused severe damage to the assistant resident's house, the commandant's dwelling and the fort, and the stone houses of the European inhabitants, rendering them uninhabitable. 40 stone houses belonging to Chinese were partly or wholly overturned. At different places the ground was torn open from one to two feet in width, and from the openings large quantities of sand and muddy water boiled up; by the falling of one of the houses a woman was killed, and her two children wounded.

The Government storehouses both at *Cheribon* and *Indramayu*, which were of wood, did not suffer.

At *Kuningan* the regency house only suffered a little. The western part part of the regency *Madja Lengka* appears to have suffered very little.

In the regency of *Galu*, and in the eastern part of the regency *Cheribon*, no damage of consequence was done.

Although the earthquake was felt throughout the whole residency of Cheribon, its devastation was confined to the northern and western parts of the regency *Cheribon*, the eastern and northern parts of the regency of *Madja Lengka*, and the division *Indramayu*.

Light shocks continued to be felt until the 20th Nov. which however occasioned no damage. It has been ascertained, on investigation, that the shocks made themselves most heavily felt on the north east and north west slope of the mountain *Tjermaë*. There the ground was split in more than forty places, and rents are found of more than fifty roods long, and three to four feet broad. In some places the roads to the coffee gardens are rent, so that the approach to the same for the present is impossible. The coffee gardens themselves, however, have not suffered; nor even the dessas lying on the mountains, with the exception of the small dessa *Tjibulu* where the ground is torn. The inhabitants of this dessa, consisting of 29 families, had time to take flight.

From a private letter from an honored hand, we are put in possession of further particulars of the earthquake in the residency of Cheribon.

The first shocks were felt between half past 10 and 11 o'clock, the exact time can be ascertained with difficulty, because the clocks and watches in the interior differ. The first shock lasted fully 30 seconds; the direction in the first alarm was not observed, however it was not a proper undulation, but more a thrilling with short shocks. Some seconds thereafter the second shock began, which lasted about 20 or 30 seconds and was still heavier. From the very short intermission between the first and second shocks, the two might be taken for one. 10 to 12 minutes later the third shock came, as heavy as the two previous. It then appeared that the direction was from South West to North East. All these shocks were accompanied by a dull vibratory noise, exactly like that which the iron cable makes at the bow of a ship when the anchor is falling. The undulation of the buildings was plainly seen.

The writer journeying the same day on a tour of inspection to Ar-

djowinangon 16 miles from Cheribon, found all in ruins, and was obliged to pass the night in a bambu hut. On the following morning, proceeding further on horse back, the shocks began anew, with such violence that the horse would not proceed further.

On the 18th, he proceeded on horseback to *Buntamatti* on the river *Tijmanok*, lying 16 miles southward from *Indramaiju*. Here the shocks must also have been heavy, for all that could fall lay on the ground. In the house of an overseer, three different rents were made in the ground by the first shock, through which water, mingled with fine bluish sand, spouted up to the height of three feet. Judging by the direction of fallen objects the shocks were felt from southwest to northeast.

The atmosphere was unusually clear, so that from this place the mountains in the Preanger Regencies could be seen; from one of these, probably Gunong Guntor, a column of smoke ascended.

The following day at Dana Radja, where all the stone buildings had been over turned, the ground was found to be rent in more than fifty places. From most of the fissures water spouted up mingled with fine bluish sand like the sea sand on the beach at *Cheribon*. The overseer declared that the water was warm, and that it had a disagreeable smell. The direction of the shocks must here have been from southwest to northeast as appears from the direction in which some stones, which stood on their sides to dry, had fallen.

In a small dessa named *Genting*, five miles to the northward of Dana Radja, and in another dessa named *Persona*, 8 miles to the northward, the quantity of water and sand spouted from the ground was so great that, according to the natives, it occasioned an actual inundation. On the same day also the mountain in the *Preanger Regencies* above spoken of was seen to smoke strongly.

The mountain *Tjermae* in *Cheribon*, was, during all the time in question, uncommonly clear and cloudless, and nothing peculiar could be observed on it.

According to the view of the writer, the shocks which were felt in the above named place came from the direction of the *Preanger Regencies*, and the undulation of the ground was checked by the

trachite pillar of which the *Palimanang* mountains consist. It then went northwards, and, after having passed *Ardjowinangon*, proceeded again in the direction of west to east; whence also it can be explained why the shocks were felt much heavier in the immediate neighbourhood of the *Palimanang* mountain than elsewhere. On all places which lie in the volcanic district of the *Tjermac* the shocks were felt little or not at all, but heavily in the alluvial and tertiary district between Cheribon and the river *Tijmanok*.—*Translated from the Javasche Courant.*

THE
JOURNAL
OF
THE INDIAN ARCHIPELAGO
AND
EASTERN ASIA.

THE LAWS OF THE INDIAN ARCHIPELAGO AND
EASTERN ASIA.

IN laying before our readers the first of a series of papers on the Laws of the Indian Archipelago and Eastern Asia, we shall confine our preliminary remarks to the more immediately practical bearing of the subject in connection with the British Settlements. This we do because the great general importance and interest of the Laws of the different Races with which this Journal is concerned, must be obvious to every one who has any relish for ethnographic studies, and because the different systems that prevail are so intimately connected with the history, and the peculiar character and habits, of the people who possess them, that any comment on their origin, spirit, and influence will be most conveniently introduced as a preface to the separate papers of the series. The importance and even necessity of ascertaining the laws of the large proportion of those Races who contribute to furnish a population to our own Settlements may be less obvious to many; and as we believe that much inconvenience, and occasional injustice, have arisen from the neglect of the subject, we shall take this opportunity of inviting attention to it.

We have not space to do more than advert to a few of those con-

siderations which must occur to every one who has any experience of the actual operation of a purely European jurisprudence in a community like that of Singapore, of which only one fiftieth has even the religion of Europe. It is owing to this, on the one hand, and, on the other, to the great dissimilarity in civilization and customs between the different races themselves, the recent origin of the Settlement, and its almost purely commercial character, that there is perhaps no other British colony where interesting and nice questions of international, and what may be termed inter-religious law, so frequently arise as in Singapore. But as they generally occur incidentally to the lawyer in his chambers, and have rarely been discussed in the Court, (for there is little inducement to carry such questions to a tribunal from which the professional judge is absent three fourths of the year,) this branch of jurisprudence has hitherto been little cultivated. The religious and domestic usages of each class of our motley population have received a certain degree of toleration; but in professing to combine with this an invariable recognition of the law of England as the only foundation of its decisions, the Court has not been successful, or perhaps always consistent, in elucidating the principles by which this union may be practically consummated. It has, on the contrary, as much as possible, avoided the discussion and determination of these principles; and the claims of the Asiatics under its jurisdiction to have the extent to which their usages may legally prevail, so defined as to be in some measure comprehensible, have been met by general declarations of its willingness to administer English law with a large and liberal regard to their religions, manners, and customs. Without venturing to impute any blame to the Court for thus shrinking from grappling with a subject apparently of a difficult and obscure nature, it might perhaps have been of better consequence if it had not hesitated to explore it thoroughly, and expose the very limited and inadequate protection which the most liberal interpretation of English law, if sound, will allow to native usages. To have accomplished this, however, an intimate knowledge of these usages, and of the laws with which they are synonymous or interwoven, or from which they are derived, would have been necessary; and, as

there are no works in which the usages are fully and faithfully described, and, with the exception of the pure Hindú and Mahomedan systems, no readily accessible authorities on the laws, to which they could have referred, it would have been unreasonable to expect from English judges, in addition to the ordinary labours of their office, and during their generally brief tenure of it, the learning and original research of a Sir William Jones. It is true that, as neither these laws nor usages, whatever weight may be given to them, could enter into the substantive jurisprudence which the Court administers, and in every case in any degree involving them, must, in so far as they were allowed to influence the decision, have been proved amongst the facts of the case, the Court, in every such case, had an opportunity of examining certain branches of the subject, and ascertaining the exact degree in which their recognition could be reconciled with the faithful administration of English law. But to this the answer is, that in dispensing justice to races with many of which dissimulation and craft, so far from being discountenanced, are reckoned necessary social arts, it is often impossible for a judge to entertain a conviction that the laws and usages expounded by the witnesses in a particular case, are anything more than a clever adaptation of them to the interests of the party on whose behalf they testify. Cross examination, however valuable as an instrument in exposing falsehood, does not always succeed in extracting the truth. Besides, a judge who desired to commend the wisdom of any general principle to the respect of his successors, or to lay it up for his own guidance in future cases, would not be willing to adopt it until he had tested its range of applicability, by considering the general scope and spirit of the usages of the Asiatic race or races on which it was to operate, relatively to those which have subsisted in England incorporated or in union with the law. He would not even feel satisfied of his competence to deal skilfully with the evidence offered in the particular case, without a previous general acquaintance with the system to be explained, in one of its applications, by the witnesses. It is not surprising, therefore, that the Court should have been somewhat averse to entertain questions which it had not the means of satisfactorily determining. The

matter for regret is, that this indisposition to look the difficulties fairly in the face, coupled with the profession of administering the law in a liberal spirit, has had the effect of throwing a veil over a great practical injustice,—the non-adaptation of the law, in some of its branches, to the personal feelings and habits of large masses of the people,—and thereby postponing the interposition of the legislature. For the truth is, that however well fitted, in the main, a considerable portion of the law of England is to the condition of a community almost purely mercantile, (and more intelligent and intelligible as it unquestionably is than any Asiatic system that could be substituted for it,) it is, in some of its provisions, so irreconcilable with the habits of many classes forming the bulk of the population of Singapore, that, in its administration, these habits must continue to be disregarded, until a legislative remedy be provided. Unless the Court were to usurp legislative functions, to incorporate them with its administrative, it could not be more liberal in its regard to those habits than the law allows; and it would be a contradiction in terms to affirm that it could exercise that liberality at all in those cases where a just and tolerant spirit most requires it,—those, namely, in which native suitors ask it to give effect to their usages because the law of England is wholly repugnant to them.

To enable the legislature to interpose wisely and justly, it would be first requisite to ascertain, from the best available sources, what are the usages, and laws which have been embraced as usages, of every considerable class of the people, in relation to matters in which personal feelings are deeply concerned. It would then be necessary to enquire how far, with a view to the advancement of the people, and their gradual approximation to the higher civilization of Europeans, it might be expedient to deny all toleration to such of these usages as were manifestly and grossly inconsistent with the principles of natural justice, and to merely tolerate others by restricting the interference of our Courts of justice with them. What remained of an innocuous arbitrary character, and intimately connected with the social or personal virtues of a class, might be placed directly under the protection of the Courts by modifying the law, as regarded that class, so as to

countenance such usages. It is not at all probable that, within any period of time the prospective changes in which would be considered by a legislature, Europeans will form an acclimated and considerable class. On the contrary, every one who is conversant with the recent history and present condition of the Eastern Archipelago, must be convinced that, as in many more temperate regions of the globe the European race has prevailed, or will ultimately prevail, over the original occupants, so in these countries, where the Malays at one time predominated in power and influence as they still do in numbers, the Chinese will ere long, "possess the land," and most of the local races be gradually, not so much assimilated to, as absorbed by them. As China is so near to these countries, and annually pours a fresh infusion of immigrants into every Chinese society in the Archipelago, and the colonists maintain a constant intercourse with their native country, it is not likely that the habits of a people in whom national vanity is highly developed will largely deviate from those which prevail there to approach those of Europeans—the only race equal to themselves in intelligence and social refinement, and superior in force of character, with which they are brought in contact. It is therefore the Chinese in particular, the most numerous and important class of the population of Singapore, and thus likely long to maintain their social identity, for whom a modification of some parts of our law is most urgently required.

It is not however for the sake of our own population alone, that the investigation of Asiatic laws and customs recommends itself as a work of direct practical utility. So extensive is our commercial intercourse with every people of note in the Archipelago, and so prolonged are the periods during which native traders remain here on their periodical visits, that, in the ordinary administration of justice, it must often be necessary to ascertain the laws and usages prevailing in their countries. We may instance the case of contracts entered into in other parts of the Archipelago, which, when they come to be discussed in the Courts of Singapore, must receive a construction according to the laws of the place where they were made. A considerable number of the Asiatics who reside in Singapore have not adopted it

as their permanent place of residence, but cherish to the last the intention of returning to their native country. Hence when any of them die here without leaving a will, it is necessary to ascertain their native law of succession.

We commence with a systematic Treatise on the laws of one of the most important nations of Eastern Asia,—the Siamese,—a work demanding great ability, great industry, and that extensive erudition which probably no one but its author could have brought to bear upon it. His introductory remarks render it unnecessary for us to detain our readers from it by any recommendation of the subject for its great intrinsic interest ethnologically, and its practical utility. Immediately connected as we are with the Siamese, both territorially and commercially, their laws must have greater claims to our attention than those of more remote nations. We may be allowed, however, to congratulate our readers that this portion of our series has fallen into the hands of Colonel Low, who has long been so well known for his contributions to oriental literature, and whose Treatises on Siamese Grammar, Literature, and Government, and on Budha and the Phrabat, testify how long and zealously he has laboured in that field from which he now brings us this new evidence of the extent and soundness of his research. Although, owing to the growing interest in the Hindu-Chinese languages in Europe, he may not now be noted, as he was for many years, as “*the Siamese Scholar*,” we believe he has here accomplished a task for which the ablest cultivators of the Siamese language in France or Germany would have confessed their incompetence.

ON

THE LAWS

OF

MU'UNG THAI OR SIAM,

BY

LIEUT. COLONEL JAMES LOW,

C. M. R. A. S. & M. A. S. C.

FORMERLY EMPLOYED IN THE CIVIL DEPARTMENT OF THE STRAITS
OF MALACCA AND IN POLITICAL MISSIONS.

ARRANGEMENT OF THE SUBJECT.

Elements of Siamese Law.	Pledges.
Digests.	Wages.
Property—	Copartnership.
In the Soil.	Sales.
After Conquest.	Contracts.
Singular Custom, — P,honla- t,hep.	Secret compacts.
Omens.	Administration of Justice.
Agriculture, and traditions res- pecting it.	Courts of Judicature.
Inheritance.	Justiciary Forms.
Of Widows.	Expences of process.
Of Courtiers & Officers of Go- vernment.	
Of the Priesthood.	
Testamentary power.	
Exclusion from property.	
Adoption.	
Obsequies and superstitious belief.	
Gifts.	
Embassies.	
Marriage.	
Parental authority, and reciprocal obligations of different mem- bers of a family.	
Education.	
Slavery.	
Debts.	
Coins, Weights, and Measures.	
Interest of money.	
	PENAL CODE.
	Evidence.
	Judicial Oath.
	Specific crimes and their punish- ments.
	Murder.
	Manslaughter.
	Treatment of prisoners,--Prisons.
	Theft.
	Police.
	Adultery.
	Divorce and separation.
	Elopements.
	Slaughtering of animals.
	Self murder.
	Mode of procedure where wit- nesses are not procurable.
	Decision of a Judge.

POWERS OF THE LETTERS EMPLOYED FOR NATIVE WORDS.

- u Short as in *but*, *rut*.
 á Broad *a* as in *all*.
 aa Short *a* (sound prolonged) as *a* in *mark*, *arm* &c.
 i as in *meet*, *feed*.
 (1) é, (2) è 1st as in *fête*, or *a* in *fate*—2d hard as in *bet* *pet* *mct*.
 ù the French *u*, short and long.
 ù as in *foot* and *moody*.
 ai as *y* in *my*, *cry* &c.
 aú as *ow* in *sow*, *now*.
 k,h aspirate.
 t,h never as *t,h* in thing. The letters are pronounced distinctly, and
 separately.

* * * The want of several accented and compound letters used by the author,
 has compelled us to modify his orthographie system considerably.—ED.

ON T, HAI OR SIAMESE LAW.

INTRODUCTORY CHAPTER.

THE original elements of Siamese Law had undoubtedly an ancient origin, and were intimately allied to, if they did not actually spring from, some Hindu Code. But Laws, from whatever source derived, must, in process of time, accommodate themselves to the genius, the habits, propensities, and, in some measure, to the geographical position, of the people who use them. The modifications which they undergo, will render Digests and Commentaries indispensable: and from these will eventually emanate a body of popular enactments with which will be blended traits of national character and social polity.*

Independent of that interest naturally attached by the reflecting portion of mankind to whatever contributes to elucidate the various degrees of mental energy possessed by different nations; and to the exposition of the many causes which may, at different periods, have increased or diminished it; there are, as in this instance, frequently local circumstances tending to connect practical utility with the subject.

To the investigation before us some degree of local Interest may be said to attach.

The Siamese have been for several years past near neighbours to the British in their Settlement of Prince of Wales' Island. They now border closely on the newly conquered Provinces of Tennasserim.

There is besides a considerable population of Siamese, who have placed themselves under British rule, both as settlers on Penang and as agriculturists in Province Wellesley, on the main coast of Keddah; and who are consequently subject to a British Court of Judicature.

In a political point of view, also, it is presumed that we ought not to be ignorant of the real character, prevailing ideas, and capacities of

* The Laws of a nation form the most instructive part of its History.—Gibbon.

a people so circumstanced, or of the laws and institutions affecting them. It is plain that, whether forced to it or otherwise, we must occasionally from our proximity have intercourse with this people.

To those who relish the task of comparing the Codes of the various Eastern nations, these pages may possibly be of use.

It is likewise presumed that the principles of Siamese Law will prove to be pretty fair transcripts of the Codes prevalent in north and south Laos, and Camboja, and probably of the Ava Code.

It may be premised that the practice of following precedents has made it easy to evade the law in many instances; hence *custom* will occasionally in Siam be found at variance with the Law, a fact noted by M. De la Loubere in 1688.*

If it should be found that the Siamese Laws are of Hindú origin, we have yet no sure clue by which to trace all the steps of their progress from Hindoostan. The Siamese seem to have no distinct Bali Code of Civil or Criminal Law. But they are abundantly supplied with Bali Ordinances for the regulation of their moral conduct; and for the due performance of religious *Duties* and *Rites*.—It may probably however be found, as I am inclined to believe it will be, that Bali Codes do exist in Siam.

The Digests in the Thai language are numerous. A new one has generally been issued at the beginning of, or, during each successive reign. But such a practice has not been induced so much by a desire to innovate, as by feelings of ostentation; for the repeals, alterations and qualifications of the old Laws are few. Many *additions* have however been made at these periods.

It is requisite that some account should be given here of the Digests which form the groundwork of this dissertation.

It may be observed, at the same time, that *Oral Authorities* on points where information was deficient in the Digests have been consulted, amongst the natives of the country.

The accounts which have been given of Siam by Loubere and

* "The Siamese say that their Laws came from Laos." This was a matter of course as the Siamese nation was itself a colony from Laos.—M. De La Loubere's Siam p. 9.

other Travellers and Voyagers, and the Reports of Missions, do not furnish us with authentic data from which correct information can be drawn applicable to the present day respecting the internal policy of its Rulers, and the Laws by which they are governed. But there is still much in Loubere's account of Siamese Law that is yet applicable.*

Doctor Leyden has described, on the authority of M. De la Loubere, three Codes, under the titles *P,hra Tamra*, *P,hra Tammon*, and *P,hra Kammanoot*. But they may with more propriety be termed *Chapters* of Codes.

The Digests in the Siamese language to which I have had access are the following.

1st. Kot P,hra Ayakaan.

This is a popular Digest now in use.

The first part, as the text purports, was compiled in the year 2,155 of the era of Boodd,ha [Anno Dom: 1614] by order of a King of Siam.

As the Siamese, out of superstitious motives, never pronounce the name of their King while alive, and rarely even after his death, his titles only, in this instance, are given.

These are, Som-detcha P,hra eka t,hasong, Eeso-un báromma-narot báromma báp,heettra P,hra Chaí na yo hoa.

An addition was made to this Digest three years later headed,—
Att,hamma-t,ha chak,ka weebáta b,hatang.

The last part of this is *therein stated* to have been extracted from a Digest dated on Monday, in the 6th month of the year Wák (or Monkey) 1102 or Anno Dom: 561.

It concludes with the observation that a copy of it was transmitted to the *P,hraya Lak,hán* or Raja of Ligore for his guidance, “in the year of the monkey, in the month Ai, on Wednesday, on the first night of the decrease *t,ho sok*” “[two years of the century having elapsed.]” The particular century alluded to, is left to conjecture.

2d. The next authority is a Digest which was procured by me at Mergui, a few days only after its capture by the British troops.

* Loubere confesses that he had no access to Siamese.

It purports having been compiled in 1591 of the Siamese era Sakkarat or A. D. 1048.*

“ Bot P,hra Ayakaan nee k,hat wai té k,ha-weetchau t,hahaan-
 “ chaú P,hraya Eent,ha-wongsa mûa khang ák maa kén t,ha paip
 “ *Mareet Tannau* pee ma meea 1596.”

“ Given to Chau P,hraya Eent,ha-wongsa, when he went in 1596
 “ [Anno Dom: 1055] as General of the Army sent against Tenas-
 “ serim.”

It is further stated that about this period much ignorance prevailed respecting the Laws of Siam; and that in the year of the Sakkarat Soopphanratsadoo sangwachara chatt,hamasé Sookk,ha pak,hé éka deet t,heeyang At,heet raware. 1591, [Anno Domiui 1048] the Digest was compiled by order of a King, [his proper name is awanting] entitled P,hra karunna, P,hra baat Somdet Eka t,hatsarot Eeso-ún báromma báp,hit P,hra P,hüt-t,hi-Chaú yó hoa k,hrù-ong somdetcha P,hra Narai, song Meekk,haraatcha-tham an maha prasút.†

This Digest agrees in all essential points with the *Kot P,hra Ayakaan*, but is not so comprehensive. Its principal chapters are,

Tat faúng.—On the distribution of justice divided into 22 Heads.

Tat samno-ún.—On the distribution of justice, 11 Heads.

Tat P,hriyan.—On evidence, 22 Heads.

3d. The third Digest examined is entitled,

Kot mai P,hra Ayakaan and contains the following dates of Sessions held in Siamese Courts, independent of a list of the cases decided agreeably to the Laws of the Kingdom at these periods. The first date is 1095 of the Choonla Sakkarat era [638 A. D.] The second Session described happened in 1146 of the same era. And the third quoted refers to the 1557th year of the Soopp,hanratsadoo, or A. D. 1014.

4th. Bot P,hra Ayakaan [Lak chai P,hra Thammasaæt Int,ha-paæt] is another work.

* It is afterward stated by order of P,hra see maat a Prince of the Royal blood.

† The translation of these and other Titles has been given under the head “ *Government* ” in the vii paper of the 20th. vol. of the Transactions of the R. A. Society.

The first chapter is prefaced with the remark that the Laws treated of are derived from Codes of old, framed during the reign of *Ba-romma chakka p,hat* who, as his name imports, wielded the mighty discus or chakra of the Gods according to their mythology.

This appears to be a Text Book on both Criminal and Civil Law.

It contains numerous cases and precedents to guide both judges and those who may come, or be brought before them.

Independent of the above compilations, which embrace both Civil and Criminal Jurisprudence, there are numerous Treatises on the more particular branches of Law, which have been rather confusedly jumbled in the larger Digests. Amongst these are,

Krommasak. Respects ranks.

Lak Chai. Regards the preferring of claims, complaints &c. Forms &c.

Lak Int,hapaat. On the exclusion from attendance at Court in a suit.

Bai set. On decisions.

T,hamma Máradok. On property, and inheritance.

T,hotsameet Rachat,ham wa doci k,haa. A section of the ten books of Commandments. It relates to slaves also.

Tat fáung. On the distribution of justice and preferring of suits.

Tat Samno-ún. On the same, and on examinations.

Tat P,hriyan. On evidence and Ordeal.*

The Siamese in Courts of Justice seem to be much more attentive to precedents than to the letter of the Law, and of these first they have many bulky volumes. "They are practised in evading the spirit of the Law, under the pretence that it is not applicable to each particular case, observes M. De la Loubere in his work on Siam written in the 17th century.

Respecting the origin of Laws amongst mankind, the Siamese observe, that in the *Trai P,hom* or *Tri Loca*, viz., the three Worlds,

* The P,hra Ayakaan seems to have been derived from the Bali P,hra Raja Panya. The Phra Thammasaat from the Dhurmabot on Civil Law. P,hra Tamnos relates to institution. Zak Beenyapat, Regulations for Courts and Judges. Krommasak also. Lak Chai Nuk Praat the work of some learned Lawyer. Palat is Viceroy.

Earth, Heaven, and Nip,han [Nivan] displayed, it is related that men long continued in a state of innocence after their creation, but were seduced at length by *Man Pachon* or spirits, who instilled evil into their minds; that good spirits came to counteract the mischief done by the evil ones; and that both followed men like their shadows. But as the first became overmatched, mankind found it necessary to set up things and to frame Laws. I may here observe that copies of the three Digests first mentioned were presented by me some years ago to the Royal Asiatic Society.

PART I.
CIVIL LAW.

CHAPTER I.
ON PROPERTY.

The Soil.

THE Siamese are rather an agricultural than a trading people, and they are not now pastoral, although it is probable their ancestors were, before descending from the north. The great body of the people, spread over the country, live chiefly by cultivating the soil; — and the population of their towns, by petty trades and traffick, chiefly in agricultural produce. For although Bangkok, the capital, exhibits a busy commercial scene, yet it is to the Chinese that the impulse must be attributed. The property of the former mainly consists in rice-ground and cattle; that of the latter in their floating-rafts, shops and stock in trade. There is a richer class composed of the owners of gardens and orchards. These live more indolently than their neighbours, when their plantations are in bearing. The wife and daughters of a *Chan Toan*, or owner of an orchard, carry the produce to market in baskets slung over their shoulders. If *he* be rich, the latter are frequently allowed to retain the profits to form separate funds for future exigencies.

Rank is known from the number of *naa* or fields over which the individual possesses a nominal superiority, for it is doubtful if many of the public officers have actually such landed property.

The soil of Siam is fertile; but the best cultivated districts lie in the immediate vicinity of navigable rivers; while all beyond these districts may not on the average exceed, by the accounts of the natives, a mile, although taken separately a few may be found from three to five miles. It may be said of all the Ultra Gangetic countries that they have fruitful soils; but that the ease with which the various tribes which people them can acquire the means of subsistence, must operate against their being fully cultivated; while it may be consider-

ed as no weak bar to the mental improvement, and to the development of the physical energies of these tribes. They cannot perceive the utility of arts and sciences which, under more rigorous climes, necessity has originated, and which refinement and habit superadded to that necessity, now uphold and invigorate.

It does not appear from any of the Siamese writings examined by me, or from information orally obtained, that the Sovereign is the virtual proprietor of the soil. That he is perfectly despotic cannot be doubted. But eastern despots generally encourage agriculture, and however the case may have stood originally, it is evident from law cases quoted in the digests and decisions that the occupiers of the land have a firm prescriptive if not an indefeasible proprietary right in it. Perhaps their Kings may have deemed, and with truth, that their own prosperity was linked with the admission of that right; and hence may have arisen the fixed assessment on landed property, which has not altered since the days of the earliest intercourse of Europeans with Siam. It is collected either in kind at 10 per cent or in money. Ten per cent on the value of the nett produce is here meant. Although this for Asia is a light tax in itself, yet when taken in conjunction with the obligation to personal service for the state, and with other exactions to which all are liable, it will be found on the whole oppressive. Besides the Kings will often break through all law, social or moral.

The assessment however is only *fixed* on land under grain cultivation. Where it is stocked with valuable or useful trees and shrubs, the ruling power exerts the right of apportioning the tax to its increasing value to its owner. These observations are supported by passages in the Digests wherein cases in point are produced, and some have been derived from inquiries amongst the Siamese. In one instance a suit is brought into Court to recover damages from a Defendant for encroaching upon, and using a portion of land belonging to the prosecutor, which it is stated he had *originally cleared and cultivated*. And in another clause it is provided, that "Property in the soil, or consisting of plantations and bee-tracts [meaning certain spaces of woodland where bees are abundant] must be proved

on occasion, by examination of witnesses and inspection of *written documents*. It is admitted that he who first clears forest-ground, and sows thereon, will be entitled to a written acknowledgement of his title to it, under the seals of certain officers.

Perhaps no nation is more scrupulously exact than the Siamese are, in committing to paper an account of such events or transactions as are, in the remotest degree, liable to subsequent scrutiny. To political negotiations or discussions the remark is peculiarly applicable.

A Chau Naa or cultivator who is desirous of clearing ground applies to the head man of the village. The latter shews his written application to the proper officer, who directs him to inspect the land and measure it. The applicant having cleared it, receives a written title; but although he is *not* in it vested absolutely with a right in perpetuity; still the land forms thereafter a part of his *real* property, is alienable by deed of sale, or by gift, and descends to his heirs at law. From this it is clear that the King can take advantage of so defective a title. Prescription is the owners best safeguard.

Plantations and gardens are taxed according to their actual capacity of production; and because this must fluctuate greatly, the grants which the proprietors received when their trees began to bear fruit &c. are renewed at intervals, and new rates of assessment settled. No allowance seems on these occasions to be made for the partial unproductiveness of any portion formerly taxed as productive until that becomes excessive.

According to the Bali Meeleent, *hara Milinda Raja*, which is a compendium of knowledge and one of the most valued books in the country, and one which Siamese Kings affect to respect, there are four things which must be attended to by a Prince who is desirous that his subjects may prosper—1st. *Sats-amed, hang*.* The distribution or loan of grain to the husbandman, and the exaction of one

* This and the other Bali words occurring in this paper are rendered according to the Siamese conception of their meaning, as I have no dictionary of the Bali language to refer to. But the Sanscrit scholar will find no difficulty here, since the Bali is cognate with that language, if not its actual root.

tenth part only of the produce of the harvest—2d. *Pareesamed, hany*. The regular payment of Government servants and dependants by half yearly instalments. 3d. The lending of money without interest to industrious subjects—4th. *Wacha Peeyang*, condescension, strict impartiality in decision, and delay in pronouncing judgement for three years, if witnesses cannot be obtained.

When the Siamese conquer a country they frequently permit the inhabitants to enjoy their own laws, in so far as may seem compatible with the safety of the former. The plunder at the first occupation belongs to the King, and as it is obtained by what they term *keep mot*, which may be rendered a perfect “sweeping of the territory,” may be supposed to include public and private property of every denomination, and they scruple not besides to insist on contributions of grain to meet real or feigned exigencies. Countries subdued by the Siamese are assessed ad libitum. But they often, for seasons at least, permit them to pay the rates to which they have been used.

The Siamese, as has been noticed already, partake more of an agricultural than of a pastoral nature, and as the [perhaps Tartar] race from which they sprung was, it may be assumed, strictly nomadic, the conjecture of M. De La Loubere may be correct,—that they were originally instructed in agriculture by the Chinese. This conjecture receives some support from the fact of the annual ploughing festival being common to both these people. Formerly, the Kings of Siam attended in person to perform the ceremony of holding the plough, but political reasons, joined perhaps to superstitious ones, seem, many years ago, to have induced them to delegate the task to the *P, honlat, hèp* or keeper of the rice granaries.

In the 6th month, the astrologers fix on a propitious day, and, when it arrives, the *P, honlat, hèp* proceeds in great pomp to a field beyond the Town, where he ploughs a space of ground sufficient to yield a crop of five measures of grain.

The *Chau P, hreea P, honlat, hèp* or simply the *P, honlat, hèp* has another duty to perform of a very strange nature, at the festival of the 2d month of the year. He there personates the King, and goes

In a palankeen, or on a bullock, in procession to the rice fields at some distance from the city, to the place called *T,hi Sau Cheeng Cha*, a band of music keeping him company, and there undergoes the penance of standing on one foot at different places for one yam (equal to about three solar hours) during three successive days. But as it would be no easy task without support, a frame of wood with a gilt canopy keeps him from falling whilst he is doing penance, or, as it is believed by the people, "proving the dispositions of the Devattas and spirits." A select band of singers dances before him. The performers are supplied with horns, with which they take water out of a large jar, throwing it over the by-standers, and invoking the Nok P,hreea Raja hong or the Royal goose (Humza) to descend and quench his thirst. Should the P,honlat,hèp let his foot descend, he is liable to forfeit his property, and have his family enslaved by the King; as it is believed to be a bad omen, portending destruction to the state, and instability to the throne. But if he stand firm he is believed to have gained a victory over evil spirits, and he has moreover the privilege, ostensibly at least, of seizing any ship which may enter the harbour during these three days, and taking its contents, and also of entering any open shop in the town and carrying away what he chooses. Care however is taken to apprise every one of the event, so that his viceroyship is no great gainer by his perquisite. The severity of the punishment awarded for a failure in the ceremony is owing to the fear of the Court that it might prove a signal to the factious to disturb the general peace, and that it would, at any rate, create discontent against the government.

An immense crowd attends the exhibition of this curious task. No rational account has been obtained from the Siamese of the origin of this custom. But I incline to believe that it is a remnant of some ancient festival in honor of the sun, especially as it is acknowledged to be one of *Hindú* origin, and as the P,hraam or Brahmans attend, and are almost the *only performers of the ceremonies*, bearing images of *Ganesa* and other Gods.

The Brahmans of India at one of their festivals worship the sun, standing the while on one foot, the other resting on the ancle, and

looking towards the East with their hands held out open before them in a hollow form.*

It is said by the Siamese, but with what truth has not been shewn, that in the 6th month when the King, agreeably to ancient usage, is bound to circumambulate the city during seven successive days,† should any delay take place in the preparation of the conveyance for his use, whether it be an elephant, chariot, palankeen, or a horse, all of which ought to be in requisition,—it is incumbent on him to stand on one foot until the cavalcade is ready, under pain of losing his crown. It is not probable that the tiara is ever placed in jeopardy from this silly custom.

Several tribes of Hindus salute a superior by standing in the manner above described, and holding their joined hands in front of their faces or foreheads.

Amongst the omens dreaded by a Prince are certain appearances in the heavens, eclipses, comets, falling of bats, dreams, bleeding of statues, (in which they believe,) twinkling of the eyelids, words accidentally heard in walking the street, calling of lizards, &c.

The Siamese *traditions* respecting the introduction of agricultural habits amongst the human race, are coeval with those which have reference to their mundane chronology, and have apparently been derived from the west, and incorporated into their history, after they had themselves become an agricultural people. They suppose that there is a *Mè p,ha sop* or primary principle from which grain sprung. Of this it is related in the Bali work *Tri P,hom* or *Trea loka*, “the three words displayed,” that, in the first and innocent age, grain (meaning rice) was not only abundant but was cultivated without trouble. It so happened, however, that the fair sex (alas!) of those times had most voracious appetites for this kind of food, and devoured such quantities of it, that the *Mè p,ha-sop*, in order to punish them, ordained that they should only reap chaff in future. The males, finding that a scarcity had ensued, and that they had difficulty in

* Asiatic Researches vol. v. p. 235.

† This is also the period of a great Hindu festival, vide A. S. Journal No. 145 p. 11.

managing affairs, set up a King to reign over them. The Mè p,ha-sop having felt thereby propitiated, permitted the grain to fructify as before. "When men become wicked scarcity prevails, and when their wickedness becomes excessive, the whole grain of the country resolves itself into its first principle, and ascends to the heavens in a spiritual shape." It may therefore be compared in some measure to *Ceres*.

The Malays are impressed with the same belief, supposing that their granaries are often emptied owing to the *flight* of the rice grain, termed by them the "*paddie terbang*" or "*Samangat paddie*."

The Siamese may be considered as very slovenly farmers, a circumstance attributable to the luxuriant liberality of nature, and to the little value attached to land. Women materially assist in the labours of the field, but not more so on the average of a year than the women of Great Britain. Except near their larger towns, the farmers seem to have adopted the indolent methods of culture prevalent in Pegu, and on the Tennasserim Coast, and *sometimes* used by the Malays. They collect large herds of buffaloes, and when the rainy season has commenced, they drive them about in the flooded fields until the soil has been sufficiently worked up and weeds destroyed. A coarse and large wooden rake, or in its place a bunch of thorny shrubs, is drawn over the surface, and the seed is then sown broadcast. By this last process they reap only about one-fourth of the quantity which would be obtained by the transplanting system, or in other words the produce of an acre sown broadcast may average 110 *t,hanan*, while that on which grain has been *planted*, will yield four hundred *t,hanan** and when rice is at a medium price, about 31¼ gallons may be bought for the value nearly of three shillings.

The annual inundation of the Siam river, or *Mè nam* assists the labours of the husbandman, by destroying the weeds and nourishing the crops by the mud it deposits in its course. The seed is sown and the crop reaped betwixt the 7th or middle of the 8th (July),

* A *t,hanan* is equal to about 1¼ gallon.

and that of the 12th month. Near towns, a rude plough and harrow are in use, and grain is *planted*.

The crops are reaped by means of a short sickle nearly resembling the English one ; and that part only of the stalk which is grasped by the hand close to the ear, is left attached to the latter, a practice also common amongst the Malays. The grain is quickly dried under a hot sun, and having been laid on a clay floor in the open air, is beaten out by the feet of oxen or buffaloes. The husk is separated by pounding the grain in a wooden mortar, or by placing it betwixt two logs of wood which are grooved. The lower one is fixed in an upright position, and the other is made to revolve on it by manual labour.

Siam, like almost every one of the Eastern countries, produces various descriptions of rice, some of which are of quick growth, and may be raised on high ground when the rain is frequent.

The Siamese, Burmese, and other Ultra Gangetic nations, practice gardening in its rudest form. The Chinese, however, are superior in this respect. But systematic as their ideas may be on the subject of gardening, yet they display little real taste in execution. Their garden deity is invested with the attributes of utility in preference to what is merely ornamental, and when aiming at the beautiful, it is by the formal arrangement of flowers and dwarf trees within a very limited spot.* The Siamese make a square garden, and plant cocoanuts in double rows along the sides. The interior is divided by ditches into longitudinal compartments ; on the edges of these areca trees and plantains are planted, and in the middle, vegetables, such as sweet potatoes, *plūli mun t,het* or yams, and the root of a plant, the *arum aquaticum*, melons, cucumbers, pumpkins, gourds, turnips, radishes, which two last are coarse. The Chinese pickle the leaves of these last, and use them at their meals. Also the egg plant, greens, and onions. Of flowers they cultivate many; not so much on account of their beauty, as to supply the flower shops, as in the Ba-

* The Royal gardens in Chinese Tartary may seem exceptions : but it is their extent only which would appear to render them worthy of being noticed. Sir J. Davis has treated this subject fully in his useful work on China.

zars of India, and for the shrines of Buddha, which are decorated by the worshippers in this country, as in Ava, with these acceptable offerings, and which are also essential accompaniments of many important civil and religious ceremonies. *

* They have the China rose; Chaba, the Arabian jasmine; Camellias, the chumpa, *Michelia champaka*; kadanga (the Malayan pananga); dák kalong, a white flower; lan t, hom, a whitish flower (the kading of the Malays); chaba, a red flower, (bunga raja of M.); dák boa lo-ung, the lotus and *Nymphaea lotus*; daau rù-ung, [boonga tei ayam of Malays] a yellow flower; p, heek, hoon, a sweet scented flower; *Immunops elengi*, (Lin: and Marsd.); dák ban mai ro roe, a red flower; dák t, hiyan, a red small flower: dák nom mèò, dák sau yoot, dák kadanga cheen, yellowish green flower; P, hott, ha chaat, dák kéò (*Kummuning, Chaecas paniculata*); dák rak (oomingoo of Malays); dák k, hem; dák hongseepbaat; dák yee t, hó; dák sa-rap, hee; dák boon naak.

CHAPTER II.

INHERITANCE OF PROPERTY.

The property of an intestate person, should he leave no legal heirs, escheats to the King, who contrives generally to get a portion of the estate of every person deceased. Wills are written or made verbally, in the presence of competent witnesses; and may not be confounded with alienation by Gift. Real and personal property may be willed and gifted away to any one, and, as hereditaments, descend to, and are without distinction divided amongst, the heirs at Law. The laws of inheritance are considered as applying *chiefly* to Heads of families. Under this view, the property of a man deceased, is divided into three portions. One goes to the parents and grand parents, one to the widow, and the third to the children, and other relatives on the man's side, according to priority.* But should the man not have cohabited so long as 3 years with his wife, she will only receive one third of a *portion* or *part*. Before proceeding further it may be as well that the forms required by Law relative to the inheritance of property be described.

When a man dies his relatives must give immediate information to the *Samó Maradóok* or Registrar of Estates of deceased Persons. The digests contain long lists of rules for the realizing and preservation of such estates, but which are too tedious to be here detailed.

A registry to have been valid must have been made in presence of a *Sena Búdee*, a corruption apparently of the Indian *Senapatty*, a *Moon*, a *Koon*, and a *Montree*, Officers of the rank of 1000 *na-a* or fields, or of a similar number of Officers whose ranks vary from 600 to 400 *na-a*. The distribution of the property takes effect after the solemnization of the obsequies; and should a claimant having the power, and opportunity so to do, neglect to put in his claim previous to the termination of the obsequies, he forfeits his right.

It should seem, although it is not of course expressed, in the dig-

* This apparently inverted order of succession is in strict conformity with the Digests.

ests, that little attention is paid by the poorest class to these rules ; and that the latter have probably been made purposely to serve the cupidity of the Court. Wealth in Siam frequently leads, as it does all over Asia, to the ruin of its possessor ; what therefore cannot with safety be enjoyed is often buried. To this also, in a great measure, may be ascribed the aversion shewn by the mass of the people to engage in arduous but lucrative professions ; and the heedless manner in which they often throw away all that they are worth at festivals, births, marriages, and funerals. In many of these respects they agree with the natives of India, and in all with the remaining Indo Chinese nations, and the Malays. A poor man will stint himself in every comfort for years, in order that he may be able to squander his savings, perhaps equal to a hundred pounds sterling, at his marriage. Indian despotic native governments too, always encourage such waste ; since poverty in their subjects is desirable to them ; and not, where provisions are so abundant, followed by disaffection and turbulence, but productive of submission and docility. The Law therefore regarding succession is often evaded by a man during his life ; since by Gift he can transfer property from his own hands to numerous relatives, and defeat the rapacity of the Court. But any attempt by an heir to conceal property which belonged to the deceased causes a forfeiture of his claims

A person claiming inheritance must personally appear ; substitutes being inadmissible. Heirs to property must assist at, and bear their share of, the charges for obsequies, exceptions being made for those who cannot, from the nature of circumstances, be present.

Before property is divided, the debts of the deceased are to be punctually paid ; and competent witnesses must be present at the division. It does not appear that any distinction is drawn betwixt property of which a female may be possessed, and that left by a man,—both are divided on similar principles. The eldest child, whether male or female, gets the largest share. Should the individual have no parents, grand parents, or great grand parents living, then the portion, or one third of the real and personal property, which such persons would have otherwise taken, is divided equally, and added to

the two remaining portions,—(the form of first separating the Estate into three parts, being always adhered to.) The same principle regulates the division where there are no claimants to either of the other two shares. A son or daughter having received a marriage portion from a parent during that parent's lifetime, will not be entitled to share in his Estate, unless a paucity of near relatives gives a title thereto. In fact he or she will only, in either supposition, be entitled to such a part of the property as would *by law* fall to be shared by either; and if the marriage portion should happen to be less than that part, the deficiency is made up at the division of the property.

A Siamese is not restricted to one wife, polygamy being *authorized* by Law. Concubinage is also common; hence it is enacted that if one of a couple who have long cohabited without having been married, survives the other, he, or she, will only be entitled to claim a small part of the Estate of the deceased depending on the generosity of surviving relatives.

A man or woman marrying without the consent of parents, will forfeit all right to inherit. This principle is extended to other branches. The paternal authority is enforced very strongly in Siam. A person going to a distant country without consent of parents cannot claim any portion of inheritance at their decease; unless it be proved either that he returned to minister to their wants during their illness, or at any rate that he attended the solemnization of funeral rites. There is in all this much in common with the Chinese laws.

It would appear that under lawful and ordinary circumstances, a person remaining ten years absent from his country without intelligence being obtained of him, cannot afterwards lay claim to property, which if present he might have inherited.

CHAPTER III.

WIDOWS AND THEIR PROPERTY &c.

The state of widowhood in Siam does not materially differ from that in England. Widows are not restricted from marrying again. In the event of a *separation*, merely, betwixt husband and wife, the sons remain with the mother, the daughters with the father, on the principle that the man would otherwise be deprived of female assistance in his household.

Although no legal restriction is imposed on the widow; yet, by a fancied moral one applying indirectly the more frequently she has been married, the less will her share be of her deceased husband's property. Should she have married a *fourth* husband, she cannot claim any part of his property at his decease. She is a *Pretsiya*, and her alleged incontinence must thus be punished. But she is entitled to her *Máradok* or personal property, and to what she had personally acquired, during cohabitation, (women carrying on petty traffic if they like,) and also to the portion which she may have brought to her husband.

When a husband dies before consummation, his widow does not take any portion of his Estate. Nor can *either* inherit the survivor's property if they have not cohabited for *three* years. The children however take according to Law. The crime of adultery invalidates any claim to such property on the part of the wife. But the wife has no recourse against the husband for infidelity. The moral Law on this point, as couched in the *Bali*, would seem to make some amends for the deficiency regarding it contained in the Civil Code. It will subsequently be noticed that a man *may kill his wife and her paramour* if he discover them together.

If a man has three or more wives, they will, in the event of his death, share amongst them one third of his property,—the wife who was first married receiving the largest portion;—and the remaining wives, portions according to their seniority. They will also get *one half* share amongst them when they have no father-in-law or mother-

in-law alive. But this supposes the inferior wives to have been free, for if slave debtors they are not entitled. Loubere has described the course of succession in different terms from the Digests. He observes that "the great wife takes first of the deceased husband's property and then her children. The little wives remaining the property of the heir, and not inheriting."* (Transl: of Loubere's History of Siam.)

Where a widow has been twice married, and has had a family by her first husband, should she have a family by her second marriage also, that family will take five shares more than the step children in the event of the death of the second husband. In some commentaries the step children are not allowed to share; since it is supposed that they *receive a portion from their father's Estate*. If there are no children by the second marriage, the step children *seem* entitled only to one sixth part of *one of the three shares* of the Estate. But I cannot find in the Digests the reason for this rule.

A widow who marries a widower and bears a family to him, takes the usual third. Should she have no children she takes one half of one of the portions.

A widow *may* marry her deceased husband's brother, or the son of the brother. And the converse holds good in the case of a man marrying a deceased wife's sister. But such unions are not much countenanced, and the first may be safely deemed obsolete.

Such property as a widow may have personally acquired, or have brought as a portion to her husband, or have received from him as a gift, remains her's under every circumstance; and will not be taken into account on the division of her deceased husband's property.

There are four classes of wives in Siam, [although Loubere only admits of two, viz., the "*great wife and lesser wives, the latter being all slaves.*"] Ist. Those bestowed by the *King* on Officers of the Government either as rewards for good conduct, or from a politic

* "The chief wife succeeds to all, then for her children, who inherit from their parents equal portions."

"Inferior wives may be sold as also their children by the heir, and they depend on his pleasure and on what they received from the father before his death."—M. de la Loubere's Siam, p. 22.

motive, and who are not always actually married. These wives are first in rank ; they must be treated with great respect, being Royal gifts : but in the mind of the husband are considered inferior to the *Meea tam nyan* forming the 2d. class, or the *legal* wives, being those to whom he has been united agreeably to prescribed forms. Of this second class, she whom he first married, enjoys to the last the prerogatives of precedence next to the chief wife, the King's gift.

To the 3rd. class belongs the *Meea chop chai kan eng* literally *the wife of ones own free choice*, which would imply that motives of prudence and duty, more than of affection towards the object, first urge the men to connect themselves with society by substantial bonds.

It is not indispensable with a Siamese, as with a Hindu or a Chinese, that he should have a son to perform his obsequies : but a feeling of pride makes him anxious that they should be conducted by an adopted son, should he not have a son, with requisite formality. The 4th. class is formed from slaves. A slave woman having cohabited with her master becomes virtually emancipated.

The age of marriage for the men is 20 and upwards. The women are considered marriageable at 14 years of age. But sometimes they enter that state at the early age of twelve.

An action will lie in Siamese Courts for a breach of promise of marriage either by man or woman, and damages will be awarded to the extent of reimbursing the injured party for such expences as may have been incurred in preparing for the wedding, but none for the culpable fickleness of the offender.

Marriage is confined within the following degrees of affinity. A subject may not marry within the 7th degree. The forbidden degrees are from parents, included, down to the remotest lineal descendants, and upwards, so that cousins or any one of the same *blood* may not intermarry.

As Loubere has observed “ there is no restriction to their marrying with women of any nation.” They have of course their prejudices on this subject ; and incline more to the Indo-Chinese races than to others. They have a great contempt for the Malays, they being Mussalmans, and do not often marry in that tribe.

The Kings of Siam do not follow the above rules, but always marry into their own family, and even form alliances with their own sisters and daughters* even, on emergencies, when more distantly connected scions of the royal stock are not obtainable;—a practice which it is well known prevailed as regards the sisters in Egypt, and is yet extant in other regions besides Siam.

An absence such as to cause a husband to be considered dead, in Law, and which is decided on agreeably to particular facts, entitles the supposed widow to receive her portion of his estate and to marry again. But before she and the rest of his relatives can become vested in their right to their respective shares, it is necessary that certain ceremonies shall be performed, and funeral rites paid, as if the husband was dead in fact.

When the death of an absentee has been fully ascertained, it is considered a duty imperative on his heir to scrupulously perform his obsequies. His name and age are to be written on slips of paper: these must then be burned along with an effigy, or a rude portrait of the deceased.

This last custom corresponds with Hindu practice on like occasions. The custom of burning at funerals square gilt pieces of paper, on which hieroglyphic or other characters have been written, is of Chinese origin.

Independent of these general laws in relation to the women, the Siamese Law-givers of later times have framed others, to be specially administered in cases where women are wives or daughters of officers of the government.

* Vide M. De Loubere, *Head, Marriage of Kings*.

CHAPTER IV.

INHERITANCE OF COURTIER'S AND OTHER OFFICERS OF GOVERNMENT.

Men in office in Siam are ranked, as before noticed, agreeably to a scale of fields or Naa, extending upwards from 10 to 10,000. The grades fixed by this scale are however merely nominal as to real property, and they are distinct from the Titles which are capriciously bestowed by the King.

Under other conditions of society than we find in Siam, such a system might, with propriety, be supposed to have sprung from Institutions embracing feudal servitude. It is likely that it arose in this country from the custom which a needy Court might have resorted to for the payment of its servants; and that it was disused when the cultivated land had been parcelled out to the mass of cultivators.

The estates of servants of Government from the rank of 10 to 400 fields are inherited by heirs in the same manner which has been described as applicable to the estates of subjects in general, vizt., by the three-fold partition. But for civil and military officers of higher ranks bye laws are in force.

An officer of the rank of *Sena* or *Bádee* or *Montree* [minister] cannot, it seems, will the whole of his property away. The Government acts here on the supposition that none of its servants are honest, and therefore reserves the right of controuling the distribution of the property of the higher ranks.

When an officer of one of the above degrees dies, his estate is realized, and claims entered, in the manner described for Estates in general. It is then separated into *four* portions, one is taken by the King, and the remaining three portions are divided agreeably to the laws relative to property in general; with exceptions in case of the deceased leaving a widow or widows bestowed on him by the King.

A widow who was the gift of the King to an officer receives, at his death, one half of *half a share*, above that taken by another wife. But if the officer received the wife at his special solicitation, she will

receive one half of a *share* less than the other. By this is meant one fourth part of the "widow's portion." And the portion, so forfeited, will be divided amongst the other widows, or given to one, if there is only one remaining.

A widow must have cohabited three years with a husband to give her a title to the portion fixed by law. A neglect on the part of the widow to assist in defraying the expences attending obsequies creates a forfeiture of her claim.

The widow of a public officer who was a gift from the King will receive a larger portion than above stated, in proportion as it may be made to appear that she had assisted him in his *official* duties. If she was not a gift from the King, she receives one fifth less than she would *under the above clause*; and, if she was given by the King at the request of the officer, two fifths less.

The widow being, or having been, a slave-debtor to the deceased, will not receive any portion of his estate; since, by virtue of cohabitation with him, she has been *emancipated*: but her children inherit according to law.

Supposing the officer to leave a widow who was his own choice, and one given to him by the King, besides one *Anoo b,heeriya*, or concubine, and a *That b,heeriya* or slave wife, all of whom have children, they share in the following proportions. Those of the first and second classes as 3,—unless they are public servants, when they will be entitled to take as 4. Those of the *Anoo b,heeriya* as $2\frac{1}{2}$, but if public servants as 3. And those of the last as 2.

On the demise of the wife of a public officer: and supposing that she was bestowed on him by the King: her property will be divided into three shares,—one will go to the King, one to the husband, and one to her surviving relations. The marriage portion is generally restored to the relatives should her surviving husband's rank be that of 400 Naa.

A husband, with the consent of his wife, may leave her in the house of any one as a pledge for the payment of a debt! thus constituting her a species of property.

But women seem here to have some means of checking the increase

of the practice, for if they suspect that their husbands are running in debt, they may publicly protest against their being answerable to their creditors, which seems to bar the exercise of the husband's right.

CHAPTER V.

INHERITANCE OF PROPERTY AS REGARDS THE PRIESTHOOD.

The order of the P,heek,ho or Priests of Siam is composed of individuals taken from the mass of the people ; and each member of it may return to a secular employment, either when the zeal of the people fails to provide for his subsistence, or when his own is insufficient to arm him with moral weapons to combat the temptations to which he is exposed ; for, however abstracted he ought to be in mind from all which can distract its attention to heavenly objects, yet the necessity he is under of daily mixing in the throng to receive the contributions of the pious votaries of his religion, must afford opportunities of proving his good resolves.

It is natural to suppose that the Boodd,hist Priests should have aimed at exception from laws which could but rarely be applicable to their situation ; and which must have interrupted the contemplative duties enjoined by their religion.

Were the ordinances of Boodd,ha strictly enforced, a P,heek,ho could not inherit property unless it happened to be solely of that description which might serve to supply his very limited wants and restricted indulgences.

A Priest can *only* be brought into a Court of law as a witness. If he should commit a crime, he is conveyed, or goes before an ecclesiastical Court, where the consistorial chief, Praya P,hrasadet judges him consonantly with the laws contained in the Sacred Bali Code, *P,hra Pattimok weenai*. If he should be proved to have been guilty of a very serious offence, he is stripped of the yellow *Chewán* or Sacerdotal mantle, and delivered over for punishment to the secular arm. A *Nen* or *unordained* Priest may inherit property of any sort, and an ordained one may take real or personal property which may have been bequeathed to him, but he will not be entitled to take the same as inheritance, where *no bequest* has been made. The converse likewise holds good, since a Priest may bequeath property to

any one, although his relatives and connections cannot inherit it, because in case of his dying intestate, his goods and chattels appertain to the monastery in which he lived and enjoyed the contributions of the pious worshippers. Indeed, should a Priest strictly adhere to the rules of his order, his sole property and effects ought to consist of a few indispensable articles of daily use. His dress consisting of the *Chewán* or distinguishing robe of the orders ; *P,ha Sangk,hatee* a sort of scarf ; *P,ha Sabong*, a lower garment ; *Rattak,hot ok*, a sash wound about the body at the height of the breast ; *Rattak,hot éo* another for the waist ; *P,ha angsa* an under garment or shirt ; *P,ha krap p,hra* a cloak ; and *P,ha chop ap*, a bathing dress. Ablutions do not form a prominent part of the Booddhist religion, as it exists in the Indo Chinese countries. But these Chauk,hoo bathe pretty regularly, although they are certainly deficient in personal cleanliness compared with the Brahmans. Next, there is the *baat* or vase for holding the daily collections of rice and other food. For the rest, they follow the example of *Nak,hasena* [Nagaśena] a holy character of Bali Writ, and keep at hand, a mat and pillow, to which some have added the forbidden luxuries of a cot and muskito curtains. The latter can hardly be termed a luxury in Siam, where these insects swarm, but an article not to be dispensed with, and especially where the thoughts must not be distracted. Perhaps the Priest is afraid that, by exposing his person, he might be tempted to kill these insects, which would be a sort of murder according to his creed.* The *Náng eeseet* is a square piece of cloth, on which the Priest sits, and the *p,hoaa krap p,hra* on which he prays. On such occasions his face is turned towards the rising sun, a practice found amongst the Brahmans of India. He must also have a razor for tonsure, a needle case and needles, a tinder box with steel and flint, a drinking cup made of wood or of bamboo, funnel shaped, and having an apperture at bottom with a strainer of cloth to prevent him swallowing any insect.

When the strict *P,heek,hoo* wishes to drink, he covers the mouth of the cup with a bit of muslin, and inserting the other end in water

* I had a Siamese of Bankok in my service who, when a mosquito happened to fix itself on his hand, permitted it to drink its fill and fly away.

sucks it up. He thus avoids, he thinks, the sin of taking away the life of any insect. It is lucky for his peace of mind (provided his humanity is sincere, and of this we have not sufficient proof) that he is not obliged to keep a microscope. The next articles are a blank book in which to record useful knowledge, and a steatite pencil;—a bundle of palm leaf slips, and an iron stylus to note down common matters;—an umbrella with a hook at the top, so that it may be suspended while the Priest is at his devotions,—the *Mai t,haao* or wand, which is usually about 7 feet long, and may remind the antiquary of the mystical staffs of the Druids, the Jews, the Magi and of the Brahmins. The *tarap,hat* is a fan of palm leaves, and is generally used to shade the bare head of the Priest from the rays of the sun. The bag or *yam* contains the betel and other ingredients of the masticatory, not excluding tobacco, which should properly be reckoned amongst noxious drugs, and therefore forbidden to them by the ordinances of Boodd,ha. There is likewise a vessel for ablutionary purposes, and lastly one of equal utility.

Three witnesses are required to establish the validity of a Priest's bequest, and four for a Brahmin. In explanation of the latter part of the sentence it may be remarked that persons of the Brahminical tribe have, from a very remote period, visited and resided in Siam, their numbers being regulated by the estimation in which their caste was held by particular Kings. They are termed *Ajanya P,hraam*, *Houla P,hraam*, and *Chodok,ka P,hraam*, the last is the highest caste. They are chiefly employed as astrologers and accountants.

To establish the validity of a Brahman's bequest, it is also necessary to prove that he made it forty days previous to his decease. It is affirmed that any person who may presume to question the right of a testator to bequeath property to a *P,heek,hoo* will most assuredly be precipitated into *Narok* or Hell.

The asseverations of a Priest are implicitly believed in a Court of Justice, nor is an oath ever administered to him. He simply assents to a question put, by raising his *tarap,hat* or fan, and gives it the negative by letting the fan drop. This laconic mode of replying would puzzle or cross questioner.

The Priesthood in Siam is overstocked, and in their poorest provinces they are very burdensome on the population. In the province of P,hoonga for instance, excluding the island of Junkceylon lately annexed to it, I calculated when there in 1824, that there was one Priest for the care of every hundred souls. It is to this incubus that the decline of Buddhism in some countries may be chiefly imputed, although, in as far as India is concerned, the people made but a poor exchange of the voluntary system, for the tyrannical and exacting one of the Brahmins.

But the Government has often interfered to check a system which must prove depressing to the energies of the people, and by directing that the preparatory and final examinations of candidates should be very strict, thereby excludes numbers whose only inducement to enter the order is the hope of living at ease at the expense of the community.

There is one strong inducement, however, to enter the Priesthood connected with their notions of purgatory. They believe that the soul of a parent which is there in sufferance may be relieved from torment by the son becoming a Priest or even by such son obtaining some one to enter the Priesthood as a substitute for him. Their expiatory ceremonies are but few, and have all reference to *future states of existence*, having no efficacy in the present state. The Siamese hells are in fact purgatories, for the punishments to be endured by guilty souls in them are not considered eternal, although the periods of endurance amount sometimes to millions of years ! Perfect regeneration in this life *cannot be attained by any expiation, or virtuous course whatever.*

Apostacy is rare in Siam, but neither the moral nor civil Codes, so far as the copies examined by me shew, contain laws preventive of it. The Priesthood retain a powerful influence, but not a slavish one over the minds of the people. The knowledge that any one may enter the order tends to render it far less venerated than that of the Brahmins, and causes the veneration to be paid to the Priest merely as an organ of Booddha's laws, and not as a sort of demigod like a Brahman. In the Lower Provinces a few Siamese have been converted to Mahomstanism.

There are no religious endowments in Siam exclusive of those over which the sway of the Priesthood is arbitrary. Any person may make over property to a *Wat* or monastery, but if it be in land, it pays the usual tax until the public measurement is made.

The Rong má hai thaán, is the only lay institution, if it deserves the name, partaking of a charitable nature. Here medicines, *it is said*, are issued by the King's officers gratis to the people.

Beggars are chiefly those incapacitated by sickness and lameness from labour, for any man may gain a livelihood by easy service.

CHAPTER VI.

TESTAMENTARY POWER.

It has been asserted (by the Author of the Historical Relation of Siam*) that the Siamese know not such a thing as a will. But besides what shall now be stated, it is only requisite to refer to the head Gifts to shew that they have the full force of testaments, for these cannot be enjoyed legally and openly by the grantee until after the death of the granter, (unless the latter should have authorized an immediate transfer of the property) and they are resumable at pleasure, or in the event of the granter recovering from sickness.

But the Siamese make written as well as verbal Testaments, nor does the law interpose to reverse such acts, even should it appear that the Testator has, in the apportioning and alienating of his property, infringed the social obligations. A written testament is termed *Nangsù banchi Sunya Nai không*, also *tham pheennai kun wai* signifying to *make* a will, and a verbal one, *Sangwai kap* and *bák wai*.

All that a widow can claim for herself and children in a case of exclusion from the succession to her husband's estate, is the portion she brought to him, and whatever she may have saved out of her *marádok*, or marriage portion and out of the allowance granted to her by him during his lifetime, or what she may have amassed by frugality or trade or any other occupation.

It is obvious, from the tenor of the laws affecting men of rank, that a great anxiety prevails in the Palace to prevent them from squandering their property, because the King virtually shares in it on their decease. This being the case, such persons are not allowed to make a will until the extent of their property has been ascertained and the royal demand satisfied.

Priests, although next in degree to the King, are passed over in the law digests, which respect wills, without much notice, since were they even rich, their property on their dying intestate falls to the

monastery where they lived, and since the King would scarcely venture to lower himself in the eyes of his subjects and incur the anathema of the Priesthood by taking any part of it.

The Siamese are generally sufficiently attached to their relatives to prevent them executing cruel testaments.

CHAPTER VII.

EXCLUSION FROM PROPERTY AND INHERITANCE.

Traitors, and rebels are not allowed to inherit property, and they are ejected from what they possess, their estates are forfeited to the King, and their families are reduced to slavery.

ARBITRATION.

Many of the cases which are of daily occurrence, and which respect members of the same family, are submitted to the arbitration of the Elders of a village, or a competent number of persons chosen by the parties concerned, as is the custom in some parts of India.

OBSEQUIES AND SUPERSTITIONS.

The practice of adoption is prevalent over the Indo Chinese countries.

It is not imperative on a Siamese, as it is on a Hindu, to adopt a son in default of issue lawfully begotten, since the nonperformance of funeral rites does not expose his soul, after his death, to those torments which a Hindoo deems the sure consequence of a neglect of them.

But a tincture of Hinduism is discoverable in the ordinances respecting inheritance, where a wilful neglect to perform obsequies does, in most instances, render claims on property invalid. But as the obsequies of a Siamese may be performed, and without endangering his future bliss, by any person, he feels little anxiety for an heir on that head, however he may from more natural motives wish for one. Hence, like the Hindoo, he has his ceremonies betwixt the period of conception and birth &c.

The first symptoms of pregnancy appearing, charms and incantations are resorted to in order to overawe the *P,hee paup* and *P,hee p,hrai*, which are believed to be spirits which torment incipient beings, and distress thereby the woman.

They have also very gross superstitions regarding women who die in child bed. To prevent their spirits haunting the relatives, various incantations are rehearsed, and certain spells are tied around their arms and necks. They believe that magicians dig up the bodies of

women so dying, in order to compound potent spells and elixers of immortality ; a superstition formerly prevalent in the West.

This last fancy they have had from the Bali writings, where the *Amrita* of Sanscrit writ is a frequent theme. The magicians are supposed to act, some time after the body has been interred, in this manner. They proceed to the burial ground [for the bodies of the women dying in child bed are never *burned* on the funeral pile] or *Pachee P,hee deep*, and endeavour to propitiate the spirit of the deceased by offerings of incense and viands, the deceased is supposed to burst from the tomb with a terrific yell, and to soar towards the sky, having first assumed a gigantic and appalling stature ; the potent incantations of the magician however soon force the spirit, it is fancied, to descend when, after a short parley, the magician unceremoniously pretends to decapitate it, and the relatives of the women suppose that they have gained the object of preventing its molesting them.

The Malays are imbued with superstitions of nearly a similar kind, and alike revolting.

They sometimes extract the *matee anak* or dead child from the womb of a woman who has died in labor and bury it in a separate place. They prick the fingers of the deceased with a needle, believing that if this ceremony should be neglected the spirit becomes a *Lang-soowee* and flies off to the mountains with hair wildly dishevelled, and thereafter enters into and possesses the body of any individual. Other possessing spirits are also much dreaded by women in child bed and sick persons, particularly that one they term *Pleset*, which is a sort of invisible witch. She rides on the winds, and enters into the bodies of the sick, sorely distressing them. When pressed by the nostrums of the native physicians she is supposed to retreat to the fingers ends, and there expostulate with him through the *mouth* of the patient.

Any number of children, and of either sex, may at any time be adopted, they not being relatives of the adopter within a certain degree, although brothers may be partially adopted and may be thus admitted to the *present* privileges of a son, but they will not necessarily inherit as such, In the same way nephews or other relatives may

be partially adopted. Should the maintainer of an adopted son publicly declare that he considers the person in right of a son, this last will receive an additional portion of the inheritance. A woman can adopt with consent of, and during the life of, her husband, or at her own pleasure if unmarried, or a widow. The age for adoption rarely exceeds the seventh year for the adopted, and generally takes place from the first to the third, in order that the adopted child may lose quickly all recollection of its natural parents. No particular ceremony attends adoption. An adopted son or daughter forfeits immediately after quitting its parents roof all claims on their property after their decease and thence forward. An adopted child is; by the act, vested with a perfect right to enjoy every benefit which a child begotten by the adopter would have enjoyed during the lifetime of the adopter, and to succeed to the *lawful* share of his real and personal property after his death. In the first case he is irresponsible for the debts or other acts of his real parents. In the second, he becomes liable for those of his adopted parents. But in a case where the adopter has one child or children, of his own body, the share of the adopted child is *one half* of that of this one child, or of that of one of these others. A man may adopt a child of any *tribe which worships Boodd,ha*. But he may not adopt a relative within a given degree.

But although it is not perfectly essential to the salvation of the soul of a Siamese according to his creed that he should have a son, yet it is a desirable thing, as there are many ceremonies to be attended to on his decease.

When a person becomes sick, a Priest is generally called to attend him until he recovers or dies. He repeats many Bali sentences out of the *P,hra p,heo Dh,amma*, of which the following is a specimen, being from the Bali—

Kootsala D,hamma.

Akootsala D,hamma.

App,hiya kata D,hamma.

Katta-me D,hamma.

Kootsala yatsameeng.

Samayé kamawacharang.

Koosonla cheettang.

Oopanna hotee.

Loma natsa.

Hak,ha tanyana samp,ha yoottang.

Roopa rammanangwa.

Satt,ha do.

K,hant,ha do.

Ratsa do.

Pho P,hancha do.

D,hamma do.

Yang yang wapana.

Rapp,ha tatsa samayé.

T,hatso hotee.

Aweek,hé po hotee.

Yowa pana tatsa samayé.

Anyepa att,hee.

Pateecha moppana.

Aroopee no D,hamma.

Eemé D,hamma.

Kootsala.

When a man dies his body is washed and rubbed over with turmeric and quick lime, then wrapped in white cloth and stretched out. The arms are fixed in the posture of adoration, and a piece of gold or silver together with some of the common masticatory mixture are placed in the mouth, mercury and honey are also poured down the throat of the corpse, and, if the deceased died in affluent circumstances, it is placed upright, and a hollow tube is passed from the mouth to the roof of the house to carry off the effluvia, while bamboos are fixed in holes which have been made in the feet to draw off the moisture to a receptacle below.

But should the deceased have been a poor man, his friends cannot afford the expense attending this ceremony. They therefore *bury* the body within two or three days after death, while the rich keep the remains of their relations for a week or even a month previous to interment or burning.

Almost immediately subsequent to the decease of the individual, Priests attend to read the customary ritual or service for the dead, which is a part nearly in the terms just alluded to as used in the presence of a sick person. They chaunt the *Sowat*, and *P,heett,hakoon* and *P,hra malai*. While the body remains in the house, the relations burn near it tapers and incense sticks, and place viands before it, and every day a feast is given to friends and neighbours, accompanied by various public exhibitions according to the wealth of the givers. The chief of these are *Len k,hón* or dancing and singing, *Hoon* or *puppets* resembling Punch and his attendants, distinguished into those of *Ava*, *Laos*, and *China*. The Burmese are much attached to this amusement; almost every Governor of a province keeps a band. Next there is the *Lak,hán* or Comic Opera, and the *ngeeoobhen* or Chinese Play. The Chinese acting is the most pompous imaginable; most of their plays seem to hinge on some Tartar romance, or the actual adventure of some Tartar Prince. The stage is one continued scene of grotesque and noisy military bustle, except when a measured speech is to be delivered. This the hero utters generally in a sitting posture, stroking the while his jetty beard, with Islamitic gravity, and, when a few sentences have been interchanged with the person addressed, anon comes a deafening peal of drums and brazen instruments, while hostile armies encounter with wooden spears, and shields, and a mimicry of war is displayed sufficiently indicative of the Chinese deficiency in point of pugnacity and good taste.

There are also exhibited *T,hept,háng*, or a particular kind of dance with scenical representations and phantasmagoria, in which the shadows are made to act a sort of play.

The Malays are expert at this entertainment. It is termed by them *Wayang kulit*, and it is probable that they had it from Java. There are also fencing, boxing, and wrestling matches, tight rope dancing, juggling, and feats of dexterity and strength.

The Relatives of the deceased, to shew their liberality, enclose pieces of money in limes and throw them amongst the crowd. At night fire trees, or a collection of fire works, fastened in bamboos, are displayed.

The Priests relieve each other during the night, four generally remaining at a time. They repeat out of the Bali work *Malai*, as follows:—*yanté chakk, hawata chanata patsata, ara hang samma-sam P, hooott, hena,, pat, ha pang paracheekang kat, ha panyat tantee, &c.*

They also give advice to the people assembled. On the day when the body is to be consumed, if not before, it is put into a coffin, and with much pomp carried to the *mén*, a place near a temple where dead bodies are buried. This is adorned with cloth &c., and here again games are exhibited. The proper mourning for a Siamese is white like that of a Chinese, but the injunction is not always attended to. On the decease of any of the Royal family the national mode of mourning is to shave the head. The Chinese allow the hair to grow, on such an occasion, for many months without cutting it.—(Davis' China.)

The Siamese do not burn papers with characters written on them like the Chinese. The priests repeat again portions of the Bali, and the relatives set fire to the pile. If the deceased was of the royal stock, or a priest, the pile is set on fire by a rocket sent from a distance along a wire, a practice described by Symes as prevalent in Ava. The remains of a Priest were thus consumed while I was at Martaban during the Burmese war, and such was the quantity of oil and perhaps other inflammables, that the porous earth was soaked with them and continued to burn for many days after the ceremony had terminated.

The Siamese collect the ashes and bones, wash them in perfumed water, and then either preserve them in vases or else form them with paste, lime &c. into busts of Boodd, ha, and place them in temples, or they pound them and, mixing them with lime, wash the walls of a temple with the liquid. The great raise *Semá* or pyramids over the ashes. They place cenotaphs and other buildings commemorative of the dead in places called *Sant, hep, harak*, being the *karamut* of the Malays. Here figures and paintings of the deceased are displayed, surrounded by the like representations in clay or wood of his dependants, cattle, and other animals, birds, &c. This may remind us of the Scythian custom of burying such things along with their owner, and it is no

doubt a remnant of that custom left to the Siamese by their northern ancestors. The stages of life are four.*

The poor, like the *Parsees*, expose the bodies of their relatives to be devoured by vultures and wild beasts.

The place where bodies are interred is called *Pachap, heedeep*, and that where cremation takes place *Pachaa*, and the place where a cenotaph or other monument or statue is raised to the memory of the dead is termed *Sant, hep, harak*.

When a Siamese passes a *Sant, hep, harak*, he invokes the manes of those who have been there buried, to assist him in the exigencies of life. The invocation is in Bali, and runs thus, *Sookk, hee hontoo ayoo wanno sookk, hang b, halang*, which may be rendered, "grant me peace and quietness, long life, happiness and prosperity, and strength and exemption from evil."

The Malays, and the Mussulmans in general, use the usual short prayer on passing cemeteries, viz.,

الله اكبر الله اكبر الله اكبر لا اله الا الله والله اكبر الله اكبر والله الحمد
Allah is great, [thrice repeated] there is no god but God, the un-
boundedly merciful and beneficent.

Those places where murders have been committed, where very pious persons have died, or where monuments have been raised to their memories, are all called *Sant, hep, harak*, and the spirits they are sacred to are invoked on proper occasions. The Siamese invoke the manes of parents and ancestors at various times, especially when visiting their tombs or monuments. Priests attend to read the Bali ritual. The tomb is not always closely approached by them.

But rice dressed, and other viands, nosegays of flowers, lighted incense, and waxen tapers, are placed close to the tomb to refresh the spirits of the dead.

The Malayan Mussulmans (and I believe those of India) practise a similar formality. Amongst the former, it is termed *K. hunduri* خندوري and may be gone through at any period subsequent to the

* As described under the title *Lak, hana roopa* in the Bali Work *Mileet, para* (Milinda), viz., *Roopasa ootchaiyo*, infancy; *Santatee*, youth and manhood; *Charata*, declining life; *Aneechata*, age and decrepitude.

decease of the person. Meats and even ardent spirits are laid at the side of the tomb, and the manes are invited to partake of them. Flowers are likewise strewed over the grave. The relations, or the Imams, repeat set forms of prayer, and the former make such lamentations as the degree of grief, or affectation of it, induces. The Siamese invoke or call on the manes of their parents, *while yet alive*, to aid them on pressing occasions.

The Milinda Raja contains nine injunctions respecting the performance of funeral rites and the blessing derived thereby to the performer—K,hanta (Canta) or Chapter, *Aneesongsā*, 1st *Sood,hatt,hee-kang-t,hasa sahotsang*. The person who finding a corpse floating on the waters piously affords to it the accustomed ceremonies will, after death, be rewarded ten thousand fold.

2nd. *S,hookk,ha t,hang weesa sahotsang*.—It is nearly of equal efficacy should a person bury or burn the remains of a pauper.

3d. Patee wee-setee tee-t,hasa sahotsang.

4th. Waiya wachang.

5th. Ootd,hama takang (chattoo t,hatsa sahotsang.)

6th. Yateena (att,ha t,hatsa sahotsang.) The performance of obsequies to the remains of brethren is followed by many benefits.

7th. Mata peetoonang (satt,ha sahotsang.) The duty of punctually performing the obsequies to the mortal remains of parents is so obvious, that the merit is considered less here than in any of the other instances.

8th. Sangk,hang ak,hantoo kang (att,ha satt,ha sahotsang.) If the deceased died a poor Priest the benefits arising to the pious cremater are increased to a great amount.

9th. And when it is the body of a *K,hroo-pacha Achariya*, or spiritual guide of superior sanctity, the rewards awaiting those who perform the funeral rites are innumerable.

It is rather singular that with all their veneration for the dead, the Siamese have no family *names* or titles. Few therefore can trace back their descent above two generations.

CHAPTER VIII.

GIFTS.

The Royal gift is irreclaimable, whether it consists in land, money, goods, slaves, or cattle ; and it descends in perpetuity to the heirs of the grantee, subject to the general and customary laws of inheritance.

However well defined these laws are, they may, it is clear, be rendered nugatory, or be evaded, by any one who chuses to give away his property during his lifetime.

It is obvious therefore that a holder has absolute power over his property both real and personal, and that he may proceed to alienate it from those to whom in equity it ought to, and by law must otherwise, descend.

The digests examined, do not shew one instance where recourse may be had by an heir at law against the enjoyer of property thus unjustly disposed of, but human nature here contains the counter-acting principles within itself of love of kindred, and a dread of reproach and of the execration of posterity.

Gifts ought to be made in presence of a competent number of witnesses, and relatives have of course the power to protest against such, should they have reason to believe that the Bestower is not in a sound state of mind. Under this belief the giver is subjected to three separate examinations. Should doubts *exist* they are removed according to the law.

An Officer of the rank of 10,000 fields [next to that of an ordained Priest] must have disposed of his property by gift (the King's share being always deducted) 45 days previous to his demise, and in presence of at least seven witnesses, else his gifts will be invalid. All Officers who rank as holders of 1,000 or of any number of *Na-a*, fields, down to that of 800, must have given property away 35 days before their death, in presence of seven witnesses at the least. For those of the rank of 800 *na-a* down to 400 *na-a*, 33 days must have intervened to render valid the deed of gift, which must have been made in presence of six witnesses. And all inferior officers and

subjects must have divested themselves of property by gift at a period of one month at least previous to their death, and in presence of five witnesses at least for the former, and four for the latter. Three or four are sufficient to attest a Priest's will.

But should it be otherwise satisfactorily proved that a person, while giving away property at any lawful time before his death, was in a perfectly sane state of mind, and that the act was a public one, and done in presence of competent witnesses, his deed is valid. These laws are calculated to prevent fraudulent alienation of property and to guard the heirs at law against the effects of such, and misplaced affection, but perhaps chiefly to secure the King's share.

The receiver of a *moderate* gift of property, if an heir at law, does not by acceptance forfeit his claim to participate in the estate of the donor after his death, nor can other heirs at law prevent his taking his share, unless the said gift was unusually great. The digests I have examined are not explicit on this point, and probably leave it to be decided in equity.

A son or daughter *cannot claim* any part of the parent's property during his life, but the latter frequently gives them portions; lands, clothes, arms and food are bestowed by Royalty. These presents or gifts are termed *K,háng t,hong chai* and *K,háng kam nan*. He gives clothes to the priests, betel boxes to his officers, and red or black rice to the rabble. From this last custom he is termed *Chau k,háu déng* "*The Lord of the red rice*." In this instance he adheres in some degree to Bali ordinances, for in the *Melinda raja*, it is enjoined, under the head *Satsame d,hang*, that it is part of the duty of a King to distribute grain gratis to the peasantry.

Loubere expresses himself rather too much in general terms on the subject of gifts, for he merely observes that "the heirs take all except that which the deceased had given from hand to hand." [Trans: Hist. Acct. of Siam.] Gifts by subjects to their superiors are called *Tawai*.

What may be termed the 2d class of Gifts consists of such as are made by Governors of Provinces, and Chiefs of petty Provinces. They are called *k,háng k,hám nan lé soei*.

The 3d. class includes presents brought by Ambassadors from foreign Courts or sent by the Court of Siam to foreign governments. Ambassadors are called *K,hék müring P,ha Ráchasaan* (maa, the perfect of the verb, being added to signify the arrival of one.) *K,háng bannakaan* means *presents*, sent by one independent Government to another, and when it is intimated that an envoy from such a Government has delivered presents, the phrase is “*hai không bannakaan maa t,hìng lio*” and “*K,hóng bannakaan Chau P,hreea* (here the name of the country is added) *hai ma kap thì saam p,haa k,hrù-ang bannakaan lé Ráchasaan ma t,hìng léo* i. e. The King of ———’s Ambassador, bearing *presents* and a letter, has arrived.”

Like the Chinese, the Thai race is very scrupulous in valuing presents received, and in making what *they may suppose* an adequate return. Although it will generally be found that the valuation of what is received by them is greatly underrated.

The moment an envoy arrives, officers are appointed to note down the nature, quantity, and value of presents brought. The most costly and new, equally with the most common articles, brought as presents, are beheld without any outward expressions of curiosity or gratification, by the Siamese officers; as they affect to impress the giver with a belief that such things are quite indifferent to their master, when in reality there is no trick which, ex-officially, most of them would not practice to obtain for themselves presents of the most ordinary kind from envoys.

The last class of gifts may be considered as embracing every species of tribute or *k,háng bannakaan t,hawai*, termed also *k,hrúng*, and *dák mai ngun t,hang*, gold and silver flowers. *T,hawai so-ei*; or *t,hawai k,ham nan* expresses the payment of tribute.*

* It has been thought requisite to be thus minute on this Head as these terms are easily convertible, and experience has shewn that the Siamese are ever ready; when they can do it with impunity, to make use of *such expressions* in their correspondence with foreign states as may best serve to flatter their own vanity and raise them to a higher but imaginary elevation in the scale of nations.

The King sends always three persons with his Embassies to foreign Courts, and they are seldom intrusted with much discretionary power. These are the *P,hraya Rachat,hot* or Chief. The *Uppat,hot*, or second; and the *Trit,hot* or third.

CHAPTER IX.

MARRIAGE.

Although from a view of the condition of the female sex in any country, we may not be enabled to infer the exact state of civilization to which its people have arrived; we must yet derive many aids from it for rightly appreciating their character.

Where the institution of marriage exists in civilized life there is hardly any department of society in which its influence is unfelt, and on the other hand where it is acknowledged in the lower grades of civilization, it even imparts a glow of refinement to the intercourse of a semi-barbarous race.

In Siam it partakes much more of a civil contract than of a religious institution. It was originally entirely a civil affair, but at this day religious ceremonies are occasionally introduced. Polygamy is permitted to the fullest extent, but the poverty of the great bulk of the people materially counteracts the operation of this indulgence. The men marry, as before noticed, about the age of 16 or 20, and the women from 14 upwards. The boys wear a lock of hair on the crown till of this age, when it is submitted to tonsure with much solemnity. The lock is termed *hoa chok*.

When a youth becomes attached to a girl, her parents are consult-

Three or four days are allowed for preparations on the arrival of a foreign Envoy at Siam. He ought not to be seen abroad until presentation. At the audience, the King speaks first, and asks the following questions agreeably to ancient custom. These are, however, very comprehensive ones. Whence have you arrived? What is the distance hence to your country? What difficulties did you encounter on the way? Are grain and other provisions cheap there, and is the region healthy? Is your nation at war with any other nation, or does it enjoy repose? The Envoy is not expected to reply at length to these queries, nor is the Siamese Court desirous of hearing diplomatic eloquence displayed before it.

The King does not appear in his regalia when he gives common audiences, and unless the Envoy happens to have been sent by a Court held in high estimation and respect by the Siamese, he will not be honored with an opportunity of seeing His Majesty in *crowned splendour*.

The Siamese are assuredly ignorant of the value of time, and this circumstance coupled with their pride and insufferable adherence to absurd etiquette is frequently a cause of their forgoing advantages within their reach rather than that they should appear over solicitous about the issue of a negotiation.

ed, as in almost all demicivilized countries, through the instrumentality of old persons. As she has had frequent opportunities of seeing him, and the parents and relatives, who are likewise consulted, seldom force her will, her reply is soon obtained. If favorable to the lover, he commences his attentions by making presents. But both sides secretly consult diviners to learn how rich they respectively are.

All being arranged, the friends on both sides assemble, when the portion of the bride is fixed and set aside. For the poorer classes her portion consists in a small sum of money, and a few cattle perhaps, and useful implements of agriculture or art. The middle ranks give from 12 to 24 Dollars in value, and the higher classes *ad libitum*. Independent of the mere portion, which, as among the Hindus, becomes a property *not at the disposal of the Husband*, the parents and relatives of the parties make such presents as they can spare, to increase the comforts of the couple. These consist of money, slaves, cattle, and other goods. During the three days previous to the marriage, the bridegroom lives in a room built close to the bride's house. She carries his meals to him. A feast is given every day; when all sorts of theatrical entertainments are given and sports are exhibited. All the Bali passages, appropriated to such a solemnity (which used formerly to be read by Priests) are now chaunted by the elders or some one versed in that language,—they are such as have been described already on occasions of funerals. The Siamese wrap twine round their hands in boxing. The Laos, like the Hindu pugilists are armed with metallic knobs defending the knuckles. Other games are, foot-ball, trials of strength, throwing of a discus across the river, rowing, leaping, swimming &c. Loubere has nearly in similar terms described the forms and ceremonies preliminary to the marriage-rite: observing that, after the presents have been distributed, the husband may consummate. It is probable that since he wrote, some changes have taken place; for he has omitted an essential feature in the rite, namely, the uniting of the hands of the parties by means of a white thread. The man is placed on the right, when certain elders join with the thread his right hand with the right hand of the woman, and also place his head close to hers. A single white thread

is then made to encircle the crowns of their heads, forming thus an additional link. The elders next repeat those Bali passages, which it was formerly the duty of the P,heekoo or Priests to recite; and finish by saying "*pen pheeriyakun leo &c., be ye married persons, live together until death part yau.*" The ceremony is completed as in Ava by the parties eating a dish of rice together.* The mother of the bride dresses her in the evening, and, accompanied by all the female relatives, conveys her to the temporary house of the bridegroom. Loubere expressly states that no priests can be present at nuptials. But their attendance has been sanctioned since his day, and again disallowed. The discontinuance of the practice was owing to the pious zeal of one of their Kings, who dreaded that the habits of celibacy enjoined to the Priesthood might be counteracted by frequent meetings with persons of the other sex, a danger which Brahmins are not subjected to. It is evident from the nature of the Bali book read at marriages, that the institution originally, that is to say, after the introduction of Buddhism, partook much of the Hindu solemnities on occasions of marriage. Formerly it was customary to call five priests to attend at the house of the bride the day before the marriage was to take place: They brought the baat or vase, which is used in collecting the daily contributions of the charitable, and one of them carried a small Image of Buddha. The people of the house then placed censers of burning incense, waxen tapers and flowers before them, while a Priests repeated certain Bali formulæ.†

The Priests, having pronounced these set forms, took water out of

* A practice on like occasions amongst the Burmans.

† 1. Ukkasa weepatee patee pahaya sapp,ha sam } Chorus to each, wee-
patee seett,heeya sapp,ha p,haya. } na saya parettang

2. The same sentence ending with sapp,ha } p,hló t,hámang
thokk,ha. } k,halang.

3. The same ending with sapp,ha rokk,ha.

The celebrated creed, if it may be so called, of the Indo Chinese nations follows, viz.,

Namo tatsa b,bakhawato, Arabatto, Sammasam, P,hoott,hasa, P,hoott,hang, Saranang k,hachamee,—t,hamang saranang k,hachamee,—sang-k,hang saranang k,hachamee,—T,hoottee Yampee P,hoott,hang saranang k,hachamee.

Samp,hoott,he att,hawee sancha t,hawat,ha sancha. Sahatsakee pancha satta sang,hatsanee nama mee hang—See rasa ahang tesang d,hammancha sang,han-cha at,haré nama mee hang-nama kara noopp,hawena hantawa.

the Baat or vase, and sprinkled it over the company ; accompanying the action with some additional Bali sentences. They then concluded with the *B,hawatto* and *App,hamang*, two prescribed forms. I have given insertion to the formula in order that those who desire it may be able to compare them with Hindoo formula in the Sanscrit.

Women in this country take precedence, if unmarried, not only by custom but by laws, according to the rank of their fathers, and, if married, according to the rank of their husbands. It is abundantly evident from various passages of the Digests, that the men, from the highest to the lowest rank, receive great assistance both in the management of their households, and in the conducting of their public duties, from the skill, activity and zealous intelligence of their wives. They assimilate in the cheerfulness and acute perception with which they engage in their husbands' affairs to the Burman women ; and both afford a favourable contrast to the sex amongst more Westerly Asiatic nations, where they are denied the exercise of their mental faculties, and enervated by seclusion. Jealousy is not a characteristic of the men. The Siamese will not, however, trust a *young wife* in the management of business. A three years probation is always required. The wives of the officers assist by giving advice and by

Sapp,hé úppat,hawé aneeka antaraya peeweenatsantoo ase sattoo.

Then come the following.

samphoothé pancha panya sancho chattowee satee satta sang,hatsanee nama mee seerasa &c.,

Samp,hootd,he nawootta rattate att,ha chattaleesa wee satee satta sang hatra.

Eetee peeso B,hak,hawa arahang samma samp,hott,ho weecharana sampano, sookk,hato loka weet,hoo anoottaro booreetsa d,hammasa ratee satt,ha T,hewa Manootsanang P,hoott,ho Bhakkk,hawatee.

Sawa k,hayato B,hak,hawata d,hammo santee seeko Akareeko patcha tangwee t,hee tappha weenyo heetee Soopp,hatee panno B,hak,hawato sawasang,ho ooch,hoo patee panno &c., Yaya patee panno B,hak,hawato Sawasang,ho same chee patee panno &c.

Yaya t,hee tang Chattalee booritsa Yookk,hanee at,tha booretsa bookk,halanee esa B,hak,hawato sawaka Sank,ho Ahoonnayo pahoonayo t,hak,keen nayo anchalee karanceyo anootiarang boonya k,hetang Lokatsatee.

Sak,hé k,amé charupé k,heeree seek,harakaté chantaleek,hé weemané t,heepé ratt,hé,-cha kamé tarawana gahané vehawat,hamhee k,hetté.

Descriptive of the abodes and visitations of the Dewatas.

Karane amatt,ha koossalé nayatang santang pat,hang ab,hee sametcha sakk,ho.

Eevamé soottang ekang &c.

Chayanto &c., &c.

issuing orders in the absence of their husbands. Many, from the other classes, make trading voyages in boats* up the river, both on their own account and on that of their husbands; others speculate in retailing goods; and the wives of the lowest class, help to cultivate the ground, spin cotton, and weave it, and also weave silk from the raw material obtained from Laos and China.—(The Laos silk is believed to be coarse.) They carry produce on their shoulders to market; or convey it in small carts drawn by oxen. The Burman women generally carry loads on their heads. The Siamese women embroider and sew.

Loubere has observed that the Siamese women do not receive complimentary visits from men. By which, it is supposed, he meant, when alone. But, where families are intimate, there is little restriction imposed on their different members, who visit without restraint.

The females, like those in Ava and Pegu, attend public festivals and theatrical exhibitions; where they are open to attentions from the men, and where matches are formed. They are believed to be chaste, and detection in adultery is often followed by the death of the offender, or of both man and woman by the hands of the injured husband; and it is *always*, if the husband prosecutes, followed by the utmost disgrace and by opprobrious punishments. Yet considering the general liberty they enjoy, and the frequent absence of their husbands on the public service, we cannot avoid the conclusion that they have received educations fitting them to resist many temptations. Those of the higher ranks, being exempted from manual labor, are more secluded and are not often seen abroad. But, as Loubere has observed, when they do go out, it is on foot, and without ostentation or affectation of concealment. Women are set down in the census of the people. The King seldom employs any excepting female servants in his Seraglio. No person is allowed to touch his head. And, as Loubere also observes, all his food is weighed. The Queen has her equipages, boats, gardens and slaves, and frequently *trades*. She is rare-

† The boats alluded to are about from 50 to 60 feet long and from 10 broad, draw about a foot water when empty and about 2 feet when loaded. The freight is chiefly salt and petty wares. Siamese women are expert at the oar, and excellent swimmers.

ly seen by a subject, unless at a distance, at some grand festivals; and then it is by stealth that she is beheld, since the spectators are expected to turn their faces in an opposite direction to that in which she may be, or run the risk of being *bamboosed*. Women do not succeed to the throne, but can we doubt their influence in secret? It is well known, that, both in Siam and in Ava, great political changes have been effected by Princesses of the blood Royal.

In the Bali *P,hra Sara samkrá* are certain Chapters relative to women. The chief may be here quoted. "*Mata P,heeriya*" descriptive of the woman who alone is entitled to the appellation of wife, namely, she who cheerfully busies herself in domestic economy and fulfils the duties of her station; and who is ever awake to the interests and happiness of her husbands.

"*P,kakheenee P,heeriya*," an appellation given to a wife whose affection towards her husband surpasses that existing towards brothers and sisters.

"*Sami P,heeriya*," applied to a wife who so sympathises in all the hopes, fears and wishes of her husband, that she becomes almost identified with him.

"*App,hee P,heeriya*," under this head are described the disadvantages attending a marriage of a poor man with a rich woman, for if he is not obliged absolutely to rely on her bounty, he will yet always feel a degree of dependence upon her.

"*Anoo P,heeriya*," relates to the wisdom of that law which ranks the man before the woman, constituting him her proper lord, guardian and adviser.

"*Awa P,heeriya*," descriptive of the miseries arising to a husband from bad temper in his wife.

"*Chora P,heeriya*," contains cautions against an alliance with a woman of bad character.

"*P,hetchag,ha P,heeriya*," cautionary to husbands not to incur the jealousy of their wives, as, under the influence of this deadly passion, they may resort to desperate revenge.

In the *Meeleenthara** are the following reciprocal duties of hus-

* Chap. 230.

band and wife. The husband is enjoined to point out to his wife

Papangneewaraiya.
Pareesang parang wi-
waraiya.

P,heeriyang dham-
mé narak,hayé. A-
bharanang t,hat,aiya.

both ought to consider their interests as identical. It will be his

P,hootd,ha k,hara-
wang karotee.

D,hamnangk,hara-
wang karotee.

Sappha eett,hee seep-
pang acheekk,ha T,ha-
karotee.

whatever is improper or sinful in conduct, especially the vice of traducing either him or others. He must bestow on his wife such money, jewels and effects as, from his particular rank or wealth, she has a right to expect. But both ought to consider their interests as identical. It will be his care also, that his wife attend duly to the performance of religious duties and rites, as well as to moral precepts and sumptuary enactments. The wife ought not to give any thing away without the knowledge of her husband. She must strictly and punctually attend to household duties and to the rites of hospitality, and charity, endeavouring constantly to reduce superfluous pecuniary expenditure. Independent of the deep interest which she must always take in her husband's happiness and state in society, it will be her duty to assist him by her advice when occasions offer; to correct by gentle expostulation any bad habits he may have acquired, and to revive and encourage the growth in his mind of virtuous principles.

Mata peeto sat,hee-
sang want,haiya sang-
k,ha k,harawang karo-
tee.

She will pay every respect and dutiful obedience to her own and her husband's parents, and venerate and respect the Priesthood. She must accompany her husband when he carries gifts and offerings to the Priests. She will beware of duplicity. She will pay due deference and submission to her husband, and bear with his peculiarities, and her accents must be mild and soothing, and her behaviour free from petulance.†

† "The husband has the power of divorcing. He restores her portion to her. The mother takes the *first child*, the *third*, the *fifth*, so of all the odd ones: the husband the rest."—M. de la Loubere's Siam, p. 53.

CHAPTER X.

THE PARENTAL AUTHORITY, AND OBLIGATIONS OF
THE VARIOUS MEMBERS OF A FAMILY TO -
EACH OTHER.

The law gives a wide scope to the paternal authority, restraining it only within those limits which have been established by the general sense of the community. The parent has of course the power of correcting his children within reasonable bounds, and may even if pressed by want *sell* them *before they have arrived* at years of discretion, or, which amounts to the same thing in most instances, dispose of their services for money. When children reach the age of five or six years, they are clothed for the first time; and after this, as observed by la Loubere, they are not uncovered for chastisement.

The Siamese are much attached to their children, and rarely part with them unless compelled by some pressing calamity or necessity. The children, on the other hand, are taught becoming gravity at an early age, and they both love and venerate their parents.

Where the civil and criminal codes are deficient on the subject of reciprocity of duties in families, and in other relations of Society, the Bali moral code is sufficiently explicit. A husband may, agreeably to custom, *not law*, give his wife as a *slave debtor* to another, that is sell her services. Loubere advanced a strange assertion, which, according to my researches, is not born out either by custom or by the civil or moral codes. It is that the Siamese, when offended with their daughters, sell them to a person who has a *legal* right to make them courtezans. The dregs of the people of any country may be guilty of this enormity, but sweeping charges against the whole of a community ought to be avoided, nor can I find any law countenancing it in Siam.

The reciprocal duties of parents and children, as extracted from the Bali *Milint,hara* or *Milinda Rja*, are obvious.

The parent must warn his child against vice, and instruct him in religious duties and observances; he ought to afford him such means

as his situation in life will admit, for the acquirement of useful knowledge, arts and science; he must settle him in marriage; the same rules respect a daughter as well as a son, so far as the sex will admit; the child must assist the parents in their worldly business, relieve them in old age from the cares and toils of life, and follow them with solicitude under every vicissitude of fortune, attending to their instructions; and when they die, the son, or, if no son survives, the next male relative must punctually perform all the enjoined and customary obsequies.

Next to these duties are those reciprocally binding on teacher and pupil. On the teacher devolves the imperative one of instructing his pupil in all the knowledge *which he is himself possessed of*; also that of introducing him to the society of wise and good men. He must also find means of having his pupil instructed in those branches of knowledge wherein he is himself deficient; he must anxiously watch over his progress, and prevent him from gaining only a superficial acquaintance with subjects.

The pupil must be regular in his attendance on his teacher, and, if required, act as his servant. He must treat him with respect and deference, and he will present the customary presents of clothes and goods.

EDUCATION.

The systems of education prevailing amongst the nations who are worshippers of Booddha are nearly alike.

The Siamese sometimes begin to instruct their children at a very early age, but generally at that of seven years.

It may be computed that one half of the male population is instructed in reading and writing.

The first lesson which is inculcated is respect towards parents, the ruling authorities, and the aged. Amongst equals the eldest receives precedence. Consequent on the state of society at large, and the patriarchal rules by which its members are privately regulated, their language contains every variety of expression suited to the intercourse of the gradations of rank. Misapplications of these forms of

speech expose an individual to the contempt of his equals, the hatred of his inferiors, and to corporal punishment from his superiors. Salutation is made by equals raising the folded hands to the middle of the face, and to superiors, higher or lower according to the degree of the person addressed.

Slaves and servants in presence of their masters, and inferiors in presence of superiors, sit on their heels, with bent knees, and heads inclined, while they raise their folded hands above their heads. Inferiors stoop on passing a superior, and where the disparity of rank is great, the former, on entering the house of the latter, must make his approach on his knees and elbows, and wait until he is addressed.

The most serious affront a person can offer to another is to place his hand on the head of that other. To touch his head dress is little less insulting.

It is also a breach of respect and politeness not to take off the *nong p,ha* or scarf and wrap it round the waist on entering a house on a visit, and a neglect to tuck up the long folds of the *Chong ka-ben* or lowest part of a man's dress, is on a like occasion construed into an affront. On entering a house the Siamese uncover the head, and indeed it is most common and agreeable to them, according to ancient custom, to go at all times bare headed.

The King and his Courtiers only cover their heads on solemn occasions. The King's crown is the first thing amongst the Regalia, and obeisance is paid to it when off his head, a custom of Chinese origin.

When a boy has reached the age of 8 or 9 years, his parents take him, with all the accompanying pomp they can afford, to a monastery or *Wat*, where he is delivered into the charge of the Priests. Incense and candles are burned, and presents are bestowed on the Priests. The parents continue to send provisions while their son is under tuition. The Priests first instruct their pupils to trace with steatite on a blackened board the following words and letters in Bali :

Namo P,hoott,há seett,ha t,homma á a aa í ú ù, rùk, rù lùk, lù e, é, ai, ó, au, ám, a.

When perfected in this lesson. they are taught the T.hai or Siamese

alphabet, and to read and write in that language, which is a far more reasonable mode of instruction than that in use amongst the Malays, where boys are taught to read Arabic without being instructed in the meaning of the words.

A short Bali course succeeds, which, should parents choose, is prolonged, and, as it is ordained in the Bali moral code, the Priest is obliged to instruct his pupil in whatever knowledge he is himself possessed of, provided the parents allow their children to continue long enough under his care. However, it seldom happens that parents can spare their children for a sufficiently long period. The extent of a Priests knowledge may, with a few exceptions, be considered as confined to a pedantic acquaintance with the Bali language, neither extensive nor well grounded, to a very respectable proficiency in figures, a smattering of astronomy, confusedly blended with astrological mummeries, and poly-demonolatry, if I may use the expression, and to a superficial acquaintance with physic.

In these seminaries the *elder boys instruct the younger*. They all read aloud at the same time.

Priests are not permitted to become teachers to the female sex. Girls are therefore instructed by their parents and brothers. Altho' they have no access to the *Bali*, yet as the moral precepts and discourses are translated from that dead language into the T,hai language, and as numerous poetical and other works are common in the country, females have many facilities for gaining instruction. It is supposed, however, that not more than one in twenty are so educated.

The Siamese and Burman modes of instruction agree very closely.

The Princes and Princesses are educated both in the T,hai and Bali languages.

The former are either instructed by Priests, or, what is most generally the case, by Laymen of sanctity and learning.

The Princesses are also taught by the same persons, but are sooner withdrawn from school or tuition.

The women are generally taught to spin thread, to weave and dye cloth. They are neat embroiderers, and sempstresses. The art of cookery is one, of which no good housewife, even amongst the highest

class, would choose to be found ignorant. They likewise make boxes of leaves and rushes, and prepare bouquets of flowers for presentation at temples.

The management of the temporal affairs of their husbands forms a principal branch of their education.

CHAPTER XI.

SLAVERY.

It is worthy of remark,, as it is somewhat consolatory to reflect, that, amidst many perverted institutions of Indian and Indo-Chinese despotisms, that of slavery has rarely, perhaps never, been inflicted with that remorseless and savage rigor, which for ages tarnished the fairest records of civilized Europe, and unfortunately, even yet, exerts a sinister influence over the destiny of millions in the third quarter of the globe.

Slavery has, however, in one shape or other, been established, from time immemorial, over all of these regions ; and without wishing to trace its distant origin to any other cause than that of the power which the strong exert over the weak, we shall proceed to examine the conditions in which it exists in Siam.

In the first place, it is a bounden duty of every Siamese to maintain and clothe his dependants of every description,—not perhaps a hard one considering their half naked state, and the cheapness of food.*

The Siamese are *all* Kha lo ang or “*Slaves of the ruling power,*” the last term agreeing pretty closely with the Indian word *sirkar* or *circar*. Every man betwixt the age of 20 to 60, or even to his death, is, in so far, a slave that he must obey the usual mandate of Government, (however ruinous obedience may be to his private interests,) to serve it for three or four months in the year, (Loubere rates it at six months, which native authorities do not support,) without remuneration beyond a scanty supply of rice. The services of

* “The Master has all power over his slave excepting that of inflicting death.”

“A Siamese may be *born* or may become a slave.”

“Captives in war, debtors, or persons who have been confiscated by justice can be enslaved.”

“Children of a debtor slave, born during his period of slavery, remain slaves after he has purchased his liberty again.”

“One is born a slave when born of a slave mother ; and in slavery the children are divided as on a divorce, the master standing in the place of the father. The other children in the same rank belong to the *father* if he is *free*, or to his master if he is a slave. But if the intercourse with the female slave was without the consent of her master the latter takes all the children.”

the aged are commonly dispensed with when they have sons to supply their places, and service may be commuted for the time it will occupy at the rate of 3 Dollars *monthly* to be paid in money or in kind. The number of slaves may be roughly estimated at 5 per cent of the population. The peasant cannot always afford the luxury of keeping slaves. The greatest number therefore falls to the share of men in power or office. These slaves constitute the principal part of their wealth. They are in fact retainers, who, when their masters have no employment for them, seek their own livelihood. Slaves of subjects do not all perform the 3 months service to the King. Those only who have engaged themselves, or attached themselves *temporarily* to an officer, or other person for *maintenance only*, are at liberty to go when they choose. Slaves of all classes may acquire and inherit property. But they are subject to the oppression of their masters, who find means to attach part of the inheritance left by a slave on pretence of debt incurred by him while alive.

Slavery is chiefly of that kind which originates in simple debt. It also arises from selling of personal service, which last mode of losing liberty is well known to extend over all the Malayan States to such a degree that one fifth of the population may be presumed to be in the condition of slave-debtors.

The trade of kidnapping the inhabitants of different parts of the coasts, and in the Islands, and selling them, is constantly plied by the Malayan pirates.

Slavery in Slam is considered permanent and hereditary in some cases, such as where the slave was taken in war or where he descended to his master as a part of inheritance. Those taken in war belong of right to the King. He distributes them amongst his officers. When slavery is thus incurred by war, the captive becomes *absolutely* a slave. But he may be ransomed, and it sometimes happens that a captive is admitted to certain domestic privileges which soften the severity of his fate; but in general his case is hopeless.

A soldier may not appropriate to his service a captive, unless permitted by the King to do so.

Any one but a priest may be reduced to slavery, he being presupposed to have no cause for incurring debt ; and it being well known that every thing given to him is looked on as charity.

Slavery is caused by a failure in payment of debt, and by a selling of personal service, which last is always for an unlimited time. The seller is liable for the expence attending the writing out of the agreement. The condition of slave debtor may be considered as resting on contract, since the person so disposing of his person may free himself by payment of the original sum for which he bound himself. But the improvidence which leads to servitude, and is afterwards betrayed in the general conduct of this class of people, joined to the arts by which their masters weave by degrees around them toils framed of gifts and extra luxuries, render it next to impossible, in most cases, that they should be ever able to effect their manumission.

Vagrants and persons of the lower rank, and who have avoided receiving the impression upon their arms of the King's Seal, can be made slaves by any officer of Government, who may apprehend them, and are available for the service of government. These classes are termed Lek, That and Lek Som, terms also applied to hereditary slaves.

Priests cannot be enslaved, as before noticed, nor can a slave become a Priest unless he be manumitted for a limited period, or entirely. Those convicted of man-stealing are sentenced to perpetual slavery, and to provide grass for the King's elephant. Slaves constitute frequently the most valuable part of the property of a Siamese. Their labor is to him always available in lieu of maintenance, clothes, and lodging, and when he is not in immediate want of their services, they must support themselves [like Malayan slave debtors,] paying a small yearly sum to their master. Contracts are made in writing.

Slaves whether reduced to slavery by fate of war, or necessity, or contract, are the *property* of their masters.

The master possesses the power of inflicting corporal punishment on a slave for an offence ; but if with over severity, he is liable to be fined on the complaint of the slave.

Slaves of every class, excepting that consisting of those who have

sold their services, and can produce the original sum when demanded, are the actual property of their masters, may be sold and transferred along with the soil, cattle &c., and may be given in payment of debt, even if that has been contracted at the gaming table.

Children of slave-debtors must pay all the costs for their maintenance before they can be *set free*. If a married woman, being aware that her husband frequents any one of the *rong bawn* or gaming houses, neglects to *protest* to the Chinese or other renter against being made *herself* liable for any of his debts, she will be liable in most cases, [provided her husband had, before witnesses, included her in the agreement to liquidate his debts ;] and, if she cannot pay them, she is detained in the house of the creditor, till the husband appears.

All renters, farmers, and collectors of revenue have a power of seizing debtors which no other creditor can exert. In several Siamese and Bali books it is represented as the acme of devotion for the aspirant after *Niphan** to sell his property and effects, and, having bestowed the price in charity, to sell himself and dispose of the money for the same pious purposes. King *Narinthom* of Bali writ, and the famous *Herischandra*, both of India, acted in this manner, the latter in order to pay a sacrificial fee. *Phia Muka Wesantara* of the Bali sold himself, children, and property, to obtain the means of being charitable.

The reciprocal duties enjoined in the Bali *Meeleenthara*, on superiors and dependants are as follows. The superior must be watchful over the interests and comfort of the inferiors, and his charity must be frequently exerted towards them. He must supply them with good food and clothes, treat them with kindness always, and make good to them any loss accidentally sustained.

The dependant will communicate to his superior or master all information which may affect the happiness or fortunes of the latter. He will assist him with personal services when required. He will refresh his memory relative to duty or business of every kind. He will follow him equally in adversity and prosperity, and will be ever ready to anticipate his wants!!

* A divine state of rest and absorption, Nirun.

It is to be feared that the humane maxims inculcated regarding the treatment of dependants and slaves in the Bali moral codes are considered in Siam as fit objects for cold speculation only, and are scarcely influential on the surface of private life ; much in the same manner as the moral axioms of the Chinese, and the common place moralities so rapidly and glibly uttered by Mussulmans, make no part of their real mental creed.

As before observed, the Siamese are exceedingly addicted to gaming. The women are only restrained by a sense of decency from frequenting the licensed gaming houses, for, during the two great Festivals called *Troot* and *Songk,hraan*, they play with the utmost keenness at games of chance, meeting for the purpose in private houses. A sort of carnival takes place at these periods, and gaming is *allowed free of duty*. to all ranks, during two or three days at each of them.

DEBTS SLAVERY.

A Debtor, as has been stated, subjects himself to slavery by a failure to pay when his debt becomes due. Should he have *agreed* to pay at the rate of 6 per cent per mensem (the highest rate) and thereafter have failed to pay ; the Creditor will receive, by the award of a Court, at the rate of 6 per cent per mensem for the three first months, and at the medium legal rate of 3 per cent for the remaining months, and until the debt shall be paid ; but this in the event only of its being proved that the debtor has not the means of paying at once.

Money lent on a mortgage of property which may be employed in the mean time to the advantage of the mortgagee, such as cattle, implements of agriculture, carts, &c., will not be charged with interest. Absence does not cancel a debt however long that may be. A person who rents a slave pays one third of his value to the owner should the slave die.

The children of a female slave, by a man who *is not her* master, belong to her master. If a master cohabits with his female slave, she will be entitled to manumission.

In some cases the bare act of incurring debt, without an attending

specification of servitude, being the equivalent to be rendered in case of failure to pay, will not subject the debtor to slavery with his creditor. He will often be retained by the judge if not bailed, and in this case will be kept in irons ; or he will be punished by branding on the head, and often by being led through the streets while his offence is proclaimed by beat of gong.

A slave debtor being a relative of the master is entitled to share in his estate at his death. If his debt falls short of his rightful share he will receive the overplus, but if it exceeds he must make good by servitude or otherwise, to the nearest heirs. No interest is chargeable on debts of this kind.

Interest is generally stipulated for. The common medium rate amongst the lower classes being, as before stated, about 36 per cent per annum.

CHAPTER XII.

INTEREST FOR MONEY.

The Law as inculcated in the Bali Code, *Thotsameet Rachat,ham*, allows but of a very low rate of interest, and on the whole discountenances the practice of taking any at all. But experience has taught the Siamese as well as other nations, that money is itself a mere marketable commodity, and that trade cannot exist where its value and uses are placed under permanent and invariable restrictions.

The Bali Code enjoins it as a duty incumbent on Kings to lend money without interest to their subjects. The civil Codes admit and sanction the following rates, 75 per cent per annum where Government money is concerned, and for subjects $37\frac{4}{8}$ per cent; but the general run may be taken at 36 per cent per annum. Three per cent per month is fixed by the usury laws of China. [Sir G. Staunton's Penal Code of China.] Interest cannot bear interest, but until a debt is paid the simple interest continues on the original sum; the interest for the time first stipulated being previously paid. The interest can never exceed the principal; when both are equal, the debt must be settled, or remain as it is, unless another agreement is written out, making the principal and interest a new debt.

DEPOSITS.

Deposits are delivered in presence of witnesses. When given in charge to more than one person, much confusion generally ensues. But if one of the depositaries should be absent, and the other, when the deposit is demanded from him, should declare that it is in the hands of that first, then he is put on his oath. However, unless an agreement has been made to the contrary, the owner can demand his property, and receive it from either depositary in absence of one of them. Deposits may not be placed in the hands of a slave. The goods are usually put into the hands of that bailee or depositary, when there are more than one, whose age or respectability is greatest. Deposits may be delivered to persons authorised by the owner to receive them. If the goods should be lost by a depositary he is res-

possible. But if he will swear that they were stolen or destroyed by inevitable accidents, such as fire, war, inundation, and the like, delivery is not always insisted on in a Court. It will appear from the features of the case whether the depositary had lost any of his own property at the same time, and his carelessness in protecting the charge will be taken into account.

CHAM NAM OR PLEDGES.

For these a written agreement is made out, which must be sealed in presence of witnesses, and it generally specifies what accidents will be considered as preventing restitution. But otherwise losses must be made good by the depositary. The rates of interest are not altered from those established by law, whether they are for loans on security of property, or personal security only.

If the pledge is to be used by the Depositary the debtor does not pay any interest. If the pledge is a slave-debtor, the labor he affords is considered sufficient to compensate for interest of money lent. As pledges are in most instances of greater value than the sums lent, it follows that the depositary has seldom occasion to sell them in default of payment by the debtor.

Any injury sustained by a pledge which has been used by the depositary must be made good by him.

The depositary may not sell a deposit without consulting the debtor. But *at any time* he may mortgage or pledge the deposit to a third person, without informing the debtor, he being himself responsible for any damage it may sustain. A debtor, by giving notice to the head man of the district, may take back his pledge when redeemable, should the depositary be absent. The first possessor of a pledge has the right to the greatest share of a debt, should the debtor have made a contract with a second person on the same pledge. But as the creditor is generally put in *actual possession* of the pledge, it is the fault of the second person if he be deceived. The law however divides it betwixt them, the first receiving *two thirds*, and the other *one third*, while the debtor is punished with a cudgelling. But should the first depositary have received the cash in hand, then the second

claimant gets nothing, and should he even carry the matter before a court of law he cannot recover unless the debtor has property independent of the pledge, which the first depositary continues to hold in possession for the full amount of the debt, and to use it, should it be land, or other property which by use may *not be dissipated*.

WAGES.

Rent of any kind is low in Siam, since rice is cheaper there than perhaps in any other country.

The hire of a labourer for a month has been stated at six rupees, but what it may be at the present time I cannot say.

COPARTNERSHIP.

The King monopolizes the chief portion of the trade in his dominions, consequently there is little scope for the enterprize of his subjects. None of the digests which have been procured contain laws specifically applicable to trading concerns. Port regulations do not come under the head of law. But in the digest are some decisions, which are considered as precedents. These cannot well be here quoted.

Copartners are liable for their own debts only. In fact Copartnership is not controuled or affected by any laws save those which are applicable to individuals, and this will be the case until the King and his courtiers cease to monopolize the trade.

SALES.

A purchaser having struck a bargain deposits part of the price of the goods with the seller, agreeing to return within a given period. Should the seller in the interim dispose of the goods, he forfeits their value to the buyer. Should the buyer not arrive within the stipulated time, the seller has it in his option to sell the goods and retain the deposit of the intended buyer. A person who is found selling lost or stolen property is fined the value thereof, besides being punished as the law may direct. Goods purchased openly without a warranty may not be returned for alleged deficiency, or inferiority of quality. False sales are punished as theft. Sales and transfers of landed

property are made by written deeds, or by the delivery of the property and title deeds to the buyer, or receiver, in presence of witnesses.

CONTRACTS.

A contract is made either in writing, or verbally, but in either case competent witnesses are required to give validity to the deed. A written contract cannot be entered into for a sum less than four baat (nearly four rupees.) A contract under any form is invalid if either party should have happened to lie under a legal disability, or should have been under the influence of some powerful passion, or should have been coerced. A creditor must not write out the deed with his own hand, but have it written by a person unconcerned in the transaction. The parties in a contract affix their marks to the bottom of the deed, and then touch them with their open hands before the witnesses.

The contracting party generally affixes a horizontal mark, which is crossed by the mark of the party to whom he engages. Deeds of sale of land are either committed to paper or made by delivery of the title deeds in presence of witnesses. *Secret compacts* are not uncommon both for friendly and evil purposes. But it does not appear that the Siamese have any societies resembling those in China as described by the late Dr. Milne.*

When persons associate for the purpose of planning some desperate action they take arrack, salt, and chillies, which having mixed, they draw a small portion of blood from their arms and let it drop into the mixture. Their swords, especially those which have been used in war and have been dyed in the blood of an enemy, are struck in the vessel holding the mixture. They next invoke all the Deities and Spirits within the ample range of Siamese mythology to witness the compact, and to visit the perjurer with interminable evils. The associates lastly taste of the mystic compound. When persons only swear to befriend each other on all occasions, the blood letting is omitted.

* Transactions of the Royal Asiatic Society of G. B. and I. Vol. i. p. 2.

CHAPTER XIII.

TATTAUNG OR ADMINISTRATION OF JUSTICE.

It is plain, from the tenor of the enactments which have been made for the punishment of corrupt judges and their officers, that great perversion of the ends of justice is prevalent,—while it can scarcely be less apparent that the harsh and expensive forms which attend the administration of the law must deter numbers from suing for their rights. By these combined causes the Siamese have been little benefited by the labors of their ancient lawgivers.

TATSAMO-AN.

First.—Of Judges and their corrupt practices—11 Chapters in one Digest are dedicated to an exposition of the mal-practices in Courts of Justice, into which it would be useless here to enter. It is only curious to observe such anxiety manifested by lawgivers of Siam in exposing the chicanery of these Courts to the public eye, while, at the same time, no effectual remedy is applied, however such may be abstractly inculcated and enacted to get rid of the mischief.

The penal law is no respecter of persons.

A judge must not allow himself to be swayed from the right path by any arguments, “should they even be as plausible as those which *Raja Seeng,ha*, King of Lions, used when he seduced to his party the mighty *Dog of the forest Cheeng Chawk*, and persuaded him to assist in destroying *P,hra Rúnasee* (Benares.) For if he thus acts he will be equally confounded as that King of Dogs was when he entered that region (Benares) along with *Raja Seeng,ha*. The King of that country having heard of the intended confederated attack, ordered all his subjects to stuff their ears with cotton that they might not be stunned when they came to battle by the roaring of the Lion. But *Cheeng Chawk* neglected this precaution, and was stur-ned to death by the terrific voice of the King of Beasts.”

A judge will be disgraced and suffer corporal punishment, with loss of office, who shall be convicted of compromising a suit, he being at the time aware that one or both of the parties have been wrought

on by fear to withdraw the suit, and any judge or officer of the state, who does not cheerfully, as well as uprightly, discharge his duty, will be dismissed. All such will be held strictly responsible for those they chose to employ or to recommend for public employment.

An unjust judge will be branded on the forehead by several slight cuts of a sword, and will thereafter stand on the pillory [a sort of mock impalement.] Should a judge without cause delay to settle any matter at issue he will be liable for the value in dispute and costs, and he will be disgraced should he entertain a suit, the parties in which reside beyond his jurisdiction. Should he falsify the original memorial of a party, he will forfeit the value of the property in dispute, and pay the costs, and thereafter be put in chains.

A judge will be dismissed for *incapacity*, if it shall be proved against him.

When the King suspects that any of his Law Officers are ignorant of the Codes of the Kingdom he directs the P,hra K,hlang to call them. In one digest it is related that the chief judge *Múhosot* was summoned to answer for alleged incapacity. He tried to get off by observing that he ought to be judged by a reference to his former recorded decisions. Before the Council he was forced to hear a number of cases stated, and ordered to decide agreeably to the Code of the Kingdom. He failed in one or two instances to decide according to law. The next day he was again called on, but he sent notice that he was not accustomed to carry law books in his hands, and that he had therefore sent in his place the *Lo-ung Racha t,hadu*, the *Att,hiya*, the *K,hoon sec*, and *Sangkán*, Officers of the Tribunal. When the officers had reached the Council they declared that they had never studied the *Kot P,hra Ayakaan* "The Chief Code". His Majesty thereafter expressed his surprise at the ignorance of his functionaries, and directed copies of the Code to be made out for general distribution.

As there is no School of Law in Siam it will often happen that an officer on receiving an appointment is quite ignorant of his duty. The King orders copies to be given to his officers, and it is through these officers that the people procure copies.

If a Complainant's second deposition in a Criminal Case contradicts the original memorial presented by him to the judge, he will be branded on the forehead and be *gonged* through the Streets. In a Civil Case he will only forfeit his suit.

Parties may compromise a suit already commenced, provided the proposition for it has been made by the Defendant, otherwise the suit goes on, and judgment is passed, and the Complainant who thus proposed a compromise will be precluded from again producing his suit in Court.

Complaints will be rejected should it appear that an uncalled for delay of three months, or longer, has been incurred in filing them. Forty days will in all ordinary cases be deemed a sufficient interval, and in extraordinary cases three years will be admitted. The law varies on this head, and it opens a path of corruption and chicanery which its officers know how to take full advantage of.

Persons having had complaints or suits settled in a competent Court will be fined if they take them to one within another jurisdiction, the right of appeal being still available.

Persons having lost property by thieves must prefer their complaints within ten months at farthest after the loss has been sustained.

A female suitor may employ as agents or advocates any one within the 32 *degrees* of kin.

If married, the *husband's* relatives cannot act for her, and in like manner the husband requiring an advocate may not employ any one of his wife's relations, but one from amongst the 32 degrees of kin *on his own side*.

If either Complainant or Defendant in a suit shall be found wearing a *talisman* or charm he will forfeit his suit. A Defendant will not be permitted to parry a complaint by a counter one. The original matter having been discussed, his will be attended to.

The parties' names are written down and decisions recorded, as a person who should appear oftener than *thrice* as a complainant is treated as a litigious person. Should either party call a competent decision in question he will be punished, that is to say, should supe-

rior authority adjudge it. [But appeals are not barred where allowable.]

A *P,húk,hoo* or Priest having a dispute with a brother of the order must prefer his memorial in Court while his opponent is yet a member of it, and not afterwards, when he may have become a Layman:—and a Layman who neglects to prefer a suit against another Layman until he has put on the sacerdotal garments will be non-suited.

‘*Chamop, Chak,loa* and *T,hasù* or *necromancers and magicians* will not be heard in Court as accusers of those who have reason to complain against them.’ A person having a cause in Court and not attending on prescribed occasions will forfeit his suit, or if it be a criminal matter, he will be fined. A contempt of Court is punished by fining.

Parties in a suit, or any persons connected with a cause or a trial will not be permitted to stay, during the progress of either, in the house of the judge, nor will they be allowed to have free intercourse with each other. In all suits and trials, judges are to throw out irrelevant matter, and to adhere to the facts chiefly bearing on the case.

Relatives of a party may council him in a suit at issue.

Should a judge deem it advisable to refer a suit to a higher jurisdiction than his own, and should one of the parties decline appearing before *it*, he forfeits his suit.

A priority of right to be heard is acquired by a priority in filing of a suit. But in general a judge must attend to the *Ekk,hwam aya* or matters of weighty import in preference to the *K,hwam hak,hán baanp,hen* or inferior matters.

In a suit which respects property the admission of being in the wrong by one party does not lessen the necessity which the other is under of proving himself to be in the right, and if he cannot prove his right the King takes one third of the issue.

COURTS OF JUDICATURE.

The Siamese have presidents over the decisions and consultations of the various Courts. But they have no *distinct* Courts for the investigation of criminal cases. The King who is Chau Mù-ung or lord of the country is also its chief judge. To him appeals can be made from any court, and before passing sentence he hears the debates of the law officers.* Governors of provinces exercise the three-fold duty of rulers, judges, and magistrates, but they cannot prevent appeals and complaints from reaching the King, unless with the connivance of their Councils, which is not likely to happen often, since these last are established checks on their conduct, and in fact, spies.

These Governors are called *Chau Mù-ung*† or lord of the districts or Countries. They govern by right, participate with the King in the revenues, impose fines, levy extraordinary taxes, and are, in fact, despotic to such an extent as shall not, they believe, subject them to punishment from the court. When they disgrace themselves, they are frequently supplanted by *Porang*, who are officers of an inferior rank, and who govern agreeably to positive and specific instructions transmitted from court. They have fixed salaries.

The late raja of Ligor, was a *Chau Mù-ung*, which may account for the general independence he displayed since the invasion by him of Kedáh in 1822.

A *Chau Mù-ung* is considered as lowering himself if he trades.

But he evades it by trading in the name of one of his household.

The titles of the officers of Justice vary considerably at different periods.

The following list has been made out from statements in the digests of the number and rank of officers who at various periods have

* "The King is chief judge in his Capital

"All appeals go to the Resident of the tribunal there, the Yumrat [Yommarat] he sits in the King palace, he judges in the king's absence, an appeal lying to the king. In the case of the king's absence the proceedings resemble those in the provincial courts; the king examines all the opinions and questions and then relevance before he passes judgment."—M. de la Loubere's Siam, p. 88.

† Loubere chap. iv.

held courts. There are no schools for law in Siam, any officer of the required rank may become a judge, however ignorant he may be of the law, and accordingly the King finds it requisite to issue frequent orders to enforce the study of the *Kot p,hra ayakaan* on all engaged in distributing justice. Many of the officers noted in this list occasionally held appointments unconnected with law, but the truth is, a Siamese officer must do what he is ordered, however incongruous with his previous habits the specific avocation may be.

The two great law officers are

$\begin{matrix} 1 \\ 2 \end{matrix} \}$ P,hra Satsadee, or judges of the right and left hand.

Cháu P,hreea Yommaraat is supreme judge under the King in criminal matters.

P,hra P,hoottha-ong, supreme judge in the ecclesiastical court.
P,hra Sadet, Governor of the city; who settles common matters relating to the Priesthood.

A bench in the *San Loang* or supreme court is *seldom* composed of more than eight judges, and Councillors.* Those which follow are noticed in the *Kot P,hra Ayakaan* (digest) after it has been ordered that the *Chau Krom* and *Palat Krom*, two officers of high rank, "will see that *the nation* is made acquainted with the laws,"

Assembled in the *San Loang*.

1. P,hra K,hro P,hee raam, President
2. Lo-ang Yaana p,hak,kaat
3. Lo-ang Thepp,ha Rachada
4. Lo-ang T,hammasaat
5. K,hún Raat P,hanit chai
6. K,hún Ayachak
7. K,hún Loang P,hra krai see
8. K,hún Ratcha rectharion
9. K,hún T,heppha aya

* "The whole tribunal properly consists only of a single officer, for he alone has the deliberate voice, while all counsellors have only a consultative voice.

"The *President* is the Governor, and after the Commander of the Garri-sons of his district (Commanding in Chief.)"—M. de la Loubere, p. 82.

Officers assembled in an inferior Court, P,hra see Mahosot, President,—

1. Lo-ang Racha Thada
2. Lo-ang Atthaya
3. K,hún P,hetchana thep
4. K,hún see Sangkan
5. The K,húm or Recorder, or Reporter.

The P,hreea Maha úpparaat Chattee Súreewong P,hongsa p,hak-dee badeen thán.

He guides the helm of state when the King is absent.

At a term held in the year of the Siamese Era Chúnla Sakkaraat 1146 [A. D. 1788] the following officers were present.

1. Chau P,hriya P,heth phée chai
2. P,hra Laksa Montheeyan
3. K,hún see Rachabút K,húm or Reporter.

And on another occasion were assembled in the supreme Court.

P,hreea Maha Rachakhro, President,

1. P,hra k,hro weechet
2. P,hra K,hro p,hee raam
3. P,hra See Mahosot
4. Lo-ang S,hammasaat
5. Lo-ang Yaa Prakaat

The Khúm or Reporter.

In M. De La Loubere's Hist. Relat. of Siam are the following names and titles,* of officers of a tribunal of justice, to which have been added some explanations by me.

1. "*Ocyá tchaou menang*" (President.)
2. "*Oc pra belat*" [ák p,hra palat.]
3. "*Oc pra jokebatest*" [ák p,hra yokkabaat] a kind of Attorney General and spy on the Governor.
4. "*Oc yra peun*" [ák p,hra pun] Commands the Garrison.
5. "*Oc pra maha tai*" [ák p,hra maha t,hai] Keeper of the Military census.
6. "*Oc pra sassedi*" [ák p,hra satsadee] Keeper of the census

* Ph. III. c. 4.

of the people. He begins to write down the names of children when they are 3 or 4 years old.

7. "*Oc louang meuang*" [ák lo-ang mùung] Superintendent of Police.

8. "*Oc louang vang*" [ák lo-ang wang] Governor of the Palace.

9. "*Oc lo-uang peng*" [ák lo-ang p,heng] Keeper of Criminal Law records and pronouncer of a judge's sentence on a convicted person.

10. "*Ak lo-ung clang*" Store keeper. Agent for the King in private mercantile transactions.

11. "*Oc louang cauca*" Inspector of foreigners. "*Oc counne coeng*" Provost.

12. "*Oc Counne prayabaat*" Keeper of the Prisons or Cages of bamboo.

13. "*Oc counne narim*" Governor of the Elephant Train.

14. "*Oc counne nai rang*" Surveyor for Elephants.

Officers of a Tribunal* at the capital take precedence of those of all other Courts in the kingdom.

JUSTICIARY FORMS.

The Justiciary forms in Siam have been in part correctly defined by "Loubere." The whole are as follows:—

A Petition or Memorial is presented to the judge, who gives it to his clerk to read. The Petition is copied and read to the Complainant. The original is sealed with prepared clay, and an impression made on the clay by the nail of the Complainant's finger. It is then laid aside. The clerk makes another copy, or rather an extract or a sort of Subpœna, and sends it to the Defendant.

The case is reported to the superior judges; they attend when the case comes on; and the Defendant is examined to see how near his

* Because "the right hand is more honorable than the left, the floor opposite to the door more honorable than the sides, the sides more than the wall where the door is, and the wall which is on the right hand of him that sits on the floor, more honorable than that on his left hand; in the tribunals no persons sit on the bench which is fixed to the wall directly opposite to the door, except the President who alone has a determinative voice.

"The Councillors (Counsellors) who only have a consultative voice are seated on the lower benches along the side walls, and the other officers along the wall of the side where the door is."—M. de la Loubere Siam, p. 56.

deposition coincides, or if it disagrees with, the original deposition by the Complainant. The defendant's deposition being finished and written down, it is sealed in the same way as the Petition of the Complainant. The Defendant is then cross-questioned to see if he will contradict himself. Parties are advised to reconcile matters. No reconciliation taking place, the depositions are read aloud.

If the Defendant pleads in the wrong the matter is immediately decided on; if not, copies of the depositions are taken by a proper officer to the houses of the witnesses, and these having been taken to a Bhoddhist Temple and duly sworn in there *by a Priest*, they are examined by the officer in presence, generally, of the Complainant, and such persons as he may have brought with him. The parties are kept near the Court House and strictly watched. On the day appointed the depositions of the parties who are present are read before the judges. They put such questions to the parties as they think fit; but the witnesses are not called on again. The inferior judges give their opinions in writing; and the chief judge passes sentence after having examined their grounds of decision. Appeals may be made to the King, and from one Provincial Court to another and higher one.*

* "The Siamese have only one style for both Civil and Criminal law.

"All processes are in writing.

"Governors of provinces examine the Petition and reject it or admit it as it may appear to him just or unjust. He can even chastise the Petitioner. This is to prevent any rash process being begun.

"The Governor does not appear until all preliminaries have been adjusted.

"The opinions which are all consultative are written down; the Clerk reads the depositions and evidence in absence of the Governor.

"The process being thus prepared and the council standing in presence of the Governor, the Clerk reads to him the process and the opinions of the different officers. The Governor, if he thinks proper, takes objection to opinions and questions the authors of them as to the reasons for their opinions. Then he pronounces in general terms the judgment according to Law.

"Then *Oc Lo-uang Peng* reads aloud the law of the case. But they never follow the law, and prefer the equity side of the case. The judgment is set down in writing. But the King's Attorney General or *Joksbat* [*Yok-khabat*] states to the Court when he thinks fit his opinion of the justice or otherwise of the decision.

"A Law Agent or person assisting a suitor must be at least his cousin german.

"Torture is used where proof is wanting.

"Appeals are made from Province to Province occasionally. These are always allowed, but were very expensive.

EXPENCES OF PROCESS.

In ordinary cases the expences attending a suit amount to from 12 to 30 baat or from 15 to 37½ rupees.

The person non-suited pays all expences.

The items or fees are collected on memorials—the sealing of these—permission to give security—on receiving of evidences—examination of witnesses—and *to the judges for their personal expences while a suit endures.*

Bail is not admissible in criminal cases. But by payment of certain fees the accused may relieve himself from some of the sufferings to which *all indicted persons* are exposed previous to trial, not excepting torture to extort confession.

The fees noted are

	Rupees or
1. Permission to find bail (in civil cases,	4 Baat.
CRIMINAL CASES.	
2. Exemption from leg irons,	4 „
3. Do. from body chains,	4 „
4. Do. from the iron neck collar, . .	4 „
5. Registrar's fee,	1½ „ *

“ The proofs where the other evidence is insufficient are by fire, water, vomits, tigers. The king only posses sentence of death, or his special conferences.”—M. De la Loubere, p. 87.

“ M. De la Loubere in his Hist. Relat. of Siam p. 163 of Appendix, gives the following “ account of the charges of Justice” in his time.

1. When the Judge receives the first Petition,	1 livre. *
2. The judge Tchaou Menang [Chau Múang] counts the lines and the cancellings and affixes his seal to the Petition, .	3 „
3. He sends the Petition to one of the Councillors but generally to the Nai of the parties to examine, and to shew the dwelling places of both the sureties of the parties. .	1 „
4. To the person who goes to summon parties to attend at the Hall of Justice,	3 „
5. If he must stop a night on the road,	4 „
6. Parties if allowed to give bail, one <i>security</i> for each (or surety.)	
The Judge gets, 16 }	
The Clerk, 3 }	19 „
7. Copying the reasons of the two parties to present to the judge.	
To the Judge, 3 }	
To the Clerk, 3 }	6 „

Nearly 10 pence.

CHAPTER XIV.

CRIMINAL LAW.*

The government of Siam is wholly despotic and the nod of majesty is sufficient to abrogate the wisest laws and to seal the fate of a victim; nor can justice there, from the laxity of principle existing amongst the men in authority, flow in a smooth channel even where not checked by any politic or malignant feelings actuating the Sovereign.

The Chinese are notorious in the east for the exercise of judicial cruelties, inconsistent certainly in some measure with the state of civilization to which they have arrived, and with their freedom from fanaticism, but perfectly according with the placid selfishness which marks every feature of their character.

The Siamese are a far less refined people, but their punishments do not on the whole appear of quite so devilish a character, and it is known that pride has not yet steeled their minds against many humane feelings. We must lay the formation of the criminal code and its punishments to the charge of their more barbarous ancestors,

- | | | | | |
|-----|---|---------|---|---|
| 8. | To the Clerk who goes to hear the depositions and note them down. | .. .. . | 3 | " |
| | If he should have to stop a day or a night on the road, | .. | 4 | " |
| 9. | If several witnesses are examined for each party, he takes, for each, | .. .. . | 1 | " |
| 10. | Copies of the depositions or examinations of the two parties for handing up to the judge. To the Judge, | 4 | | |
| | Clerk, | 4 | 8 | " |
| 11. | The Governor or Judge to sit in the Hall of Justice, | .. | 5 | " |
| 12. | Each of the other individuals on the bench or Oc pra, | .. | 5 | " |
| 13. | The Ok Louang, | .. .. . | 3 | " |
| 14. | The Registrar, | .. .. . | 3 | " |
| 15. | Collation for the Councillors. | .. .. . | 3 | " |
| | and | | | |
| 16. | When the law has to be consulted. | | | |
| | To the Councillor expounding or reading it, called Pang, | 3 | | " |
| 17. | Articles expended during the suit, | | | |
| | Each party pays one-half. | | | |
| | 1. White cloth, all 5 ells long. | | | |
| | 2. 5 lbs. of Rice. | | | |
| | 3. A taper of yellow wax. | | | |
| | 4. Five quids of areca and betel leaf. | | | |
| | 5. One fowl. | | | |
| | 6. Two jars of arrack. | | | |
| | 7. Some flowers and a mat. | | | |

* I have not put this part of the subject under a separate part because the Civil and Criminal laws of Siam are mixed up together.

whose system was afterwards to be softened and corrected by the mild and merciful tenet of Booddhism.

As before observed the course of justice is nearly alike in both civil and criminal matters, as observed by M. D. L. Loubere in his day.

The King is the supreme judge in his dominions, and his fiat alone sanctions the sentence of death pronounced by a judge, and in general sentence is pronounced by him. But he may delegate his power of life and death to a viceroy or commissioner, and as the latter has two associates in his power he is somewhat restrained by them.

Their *principle* is to consider the accused as guilty until proved innocent, and therefore their prisoners are treated with the utmost harshness.

Various unjustifiable methods are resorted to in order to induce confession, such as gagging, thumb screwing, squeezing of the head betwixt blocks, and pummelling with the elbows.

COMPLAINANT AND DEFENDANT IN A SUIT,

May respectively challenge witnesses mutual evidences having been once questioned by either of the parties, or on the behalf of either, may not thereafter be challenged. He who challenges will generally be nonsuited. The law inculcates the expediency of the least possible delay in the examination of witnesses in civil as well as criminal cases. *Witnesses not being obtainable*, the law ordains proof by various ordeals as before stated, and a party refusing such tests is generally non-suited, such are the ordeal by fire, where the person passes over a ditch filled with live embers, with uncovered feet; by melted lead, or boiling oil, into which he thrusts his hand; by water, into which the parties plunge, he being successful who remains longest under it, if indeed they be not both actually suffocated; exposure to wild beasts; administering of drugs and watching their effects. But women in a pregnant state are not subjected to ordeals until after delivery.

It seems only in special cases that witnesses are subject to ordeal,

and where apparent or conflicting testimony is discovered, the mere circumstance of an evidence not corroborating the statement of a party will not subject him to the ordeal. Cases are however often postponed where evidences are wanting.

A party in a suit or action who is found to have tampered with an evidence is nonsuited, and punished by fine, to the amount of the suit, and attendant costs.

A party who declines entering a pagoda to take an oath, is deemed to have lost his suit, or, if a criminal matter, to be culpable.

P,hee k,hoo, or priests, when called on as witnesses do not take an oath, provided they are *respectable in character*. They seldom make verbal replies but merely affirm or deny set questions by motions of the taraphat, or fan of palm leaves, one of the badges of the order; they raise it in affirming and drop it in denying.

Any judge or officer concerned in administering justice will be degraded and punished should it be proved that he had smoked opium and drunk spirituous liquors with a person detained in a suit or action, because parties are kept near the Court and watched that they may have as little intercourse before trial as possible with others concerned. Confession in civil and criminal cases supercedes the necessity of trial; but in criminal actions, *not* being for a *capital offence*, or *one of magnitude*, it entitles the person confessing to have a reduction of one half made in the fine commensurate with his offence.

REASONS FOR EXCLUDING WITNESSES*

	Persons excluded.	Reasons for Exclusion.
1	Persons refusing to give evidence.	But he is detained and punished should it be proved that he knows any thing about the matter at issue.
2	Drunkards.	Sufficiently obvious.
3	Opium smokers & Gamblers.	Do.
4	Goldsmiths.	Because they are <i>all</i> addicted to pilfering part of the gold entrusted to them.
5	Virgins or unmarried persons.	Virgins and unmarried women. Because their minds are wandering in quest of a husband and therefore apt to be swayed in any direction.
6	Notoriously bad character.	Clear enough.
7	Irrascible.	Because they are considered as having no controul over their speech.
8	Shoemakers.	Because of mean degree in society [a rule directly derived from the <i>Hindoos</i> .]
9	Executioners.	Because cruel.
10	Beggars.	Because being in want they are obious to bribery.
11	Potters.	On account of a story in the <i>Bali work Chunnakhosokka</i> of a Prince who having an undutiful son sent him with a note to a Potter directing him to kill the bearer. The latter gave the note to his brother who took it and was seized by the Potter and slain. The son who escaped was a <i>Deva</i> who had risen by his virtue from the state of a beggar.
12	Pregnant Women	Because their minds are not at rest and they are subject to sudden affections mental and bodily.
13	Women whose profession is dancing and stage playing.	Because all their actions and words are for applause.
14	Widow of a third husband.	Not clearly explained. Seems to have arisen from some superstitious belief, or prejudice of the <i>Hindus</i> against a widow marrying again.
15	Deaf persons.	Not explained, otherwise than because they cannot hear questions.
16	The blind.	
17	Persons who have reached 70 years of age.	Because considered as in their dotage. Natives of the East appear sooner to feel the effects of old age than those of Europe.
18	Children under seven years of age.	Obvious enough.
19	Persons at the point of or near their death.	Do.

The Siamese say that *P,hra Phoott,ha Kosa*; who I find to be the *Buddha Gosa* of the Ceylonese *Mahawanso*; introduced these prohibitions into Siam.

	Persons excluded.	Reasons for Exclusion.
20	Adulterers.	Because when convicted of the offence of adultery are disgraced by having their heads shaved, being dressed in a fish net, and having bunches of scarlet flowers stuck above their ears and then being gonged or drummed through the town.
21	Clerks.	Because they will do any thing for money.
22	Fatherless children, or rather children who cannot tell who their father was.	Not explained.
23	Persons who cannot count or reckon up figures to 10.	Do.
24	Those who are ignorant of the five and the eight offences.	Obvious enough.
25	Those who cannot discriminate betwixt good and evil in society.	Do.
26	Persons who speak confusedly.	Obvious.
27	Persons engaged in stage performances.	For the same cause as women performers are excluded.
28	Persons who are not sufficiently instructed in the duties of life as to be admissable into the order of Priests.	Obvious as in Nos. 24 and 25.
29	Persons who cannot read.	Not explained. The evil of such a strange exception is not felt much in Siam since almost all can read.
30	Tumblers.	The same perhaps as for Nos. 23 and 27.
31	Persons who give medicine to create abortion.	Obvious.
32	Undutiful children who give abusive language or beat their Parents.	Do.
33	Hermaphrodites.	

ON EVIDENCE, OR THAT PHRIYAN.

From the preceeding table it will be seen that the Siamese digests distinguish with great minuteness and no mean degree of sense and justice, the classes of persons to whose testimony credit can most safely be given, and those against which valid exceptions will be held good in law.

Those who are most competent are, priests, who *are versed in Bali learning*, this *qualification* being a consequence of the ease with which laymen can gain admission to the priesthood. Chrammanachan, or persons of the Brahminical tribe who are skilled in the sciences (by which are here meant astrology and arithmetic); spiritual guides; men of birth and rank, of reputed good character; laymen who have been priests; and in general any subject (against whom the law does not take exception) of good character; and who is punctual in his performance of religious duties.

The following is another list of incompetent witnesses; it does not differ much from that already given.

1. Contemnners of religion.
2. Debtors; under the supposition that their poverty lays them open to bribery.
3. Slaves, and near relatives of parties interested in a suit.
4. Intimate friends of parties.
5. Inmates in the house of a party concerned.
6. Idiots, and persons mentally imbecile, whether naturally so or from the effects of disease.
7. Those who do not abhor and refrain from the commission of the following cardinal sins, viz. Murder; theft; adultery; lying; drunkenness; breaking of prescribed fasts; and lastly, the sin of reclining or reposing on the mat or couch of a priest, a parent, or a spiritual guide; or generally of treating these in a manner in any way disrespectful.
8. Gamesters.
9. Vagabonds, vagrants, persons having no fixed domicile.

10. Phedchakhaat or executioners, because hard hearted and fearless.

11. Empirics. We may judge by this term of the degree of importance which the Siamese *Faculty* of medicine attach to themselves. The most skilful of the body cannot avoid the charge of ar-rant empiricism, although had the genius for the science of physic existed, the Siamese might have used their text books, which are of ancient origin, with more advantage to their patients than they have done. There are no Schools for medicine in Siam ; and so long as superstition places more faith in astrological mummary than in physic, there is no temptations to lead the practitioner from his easy course, in which study and reflection have scarcely any share.

12. Performers in theatrical exhibitions. Their profession being deemed rather disreputable.

13. Kathù-e or hermaphrodites. I suppose as they cannot be sworn either as a male or female.

14. Strolling musicians, and singers for the reasons given under class 12.

15. Strolling shampooing Doctors. do. &c.,

16. Women of bad fame, cause obvious.

17. Blacksmiths. It is rather singular to find so important a class of handicraftsmen excluded from a right of this nature. But it would seem that the exclusion is founded on a belief in Siam that most of their blacksmiths are dishonest.

18. Rok,ha p,hayat. Persons labouring under any loathsome and incurable disease. Here superstition has overbalanced reason. For the Siamese cannot otherwise account for this exclusion than by affirming that those labouring under a cruel malady are suffering the just punishment due for offences committed in a prior state of existence.

Expiation does not form a part of the moral or civil code, for *P,hra Phom Chau t,hee* or the *God of earth*, the *recording spirit*, writes the evil actions of men on a dogskin parchment, and their virtuous deeds on a golden scroll, and when their immortal souls are just separating from their bodies, the two volumes are opened. Should

the good deeds outweigh the evil ones, the happy spirit ascends to one of the twenty two heavenly spheres ; if they should prove lighter, it falls down to hell or narok. But if its sins have been of no great magnitude, yet not counterbalanced by a sufficiency of good actions, it migrates into the body of some human being, or animal. In the latter case it is believed that the soul chooses that sort of animal for which it had the the greatest liking during life, or to which it assimilated in character.

19. Personal enemies to accused persons [cause evident,] or to one or both parties in a suit.

20. Children under 7 years of age.

21. Persons whose age exceeds 70 years, probably from supposed imperfection of memory.

22. Traducers of the characters of others, same as *tiars*.

23. Persons labouring under any sort of temporary derangement of mind, [whether violent passions are included is not specified.]

24. [Chang Kœ-ak. Shoemakers, are excluded for the same reason that blacksmiths are. Perhaps the prejudice came from Hindoostan where it prevails in force.

25. Beggars. Since open to corruption from their poverty.

26. Braziers.

27. Persons convicted of theft.

28. Obstetricians.

29. Those who use *K,hat,ha* and *Montra* or incantations and sorcery are to be rejected.

The following is the *Civil* and Criminal oath administered to witnesses, with the mode of administering it. It has been noticed before that persons of different nations residing in Siam ; are sworn agreeably to their religious tenets. The forms attending on the administering the oath of fidelity to the king are different in some degree from those, to which it is here only requisite to allude although all foreigners are amenable to the laws of the kingdom.

It is imposed annually on all officers during the 5th. month at the ceremony of bathing the king.* The practice of weighing the king

* The King bathes in his palace and cut his own hair. Priests are

is not extant in Siam. But they have an idea in general in the country, as the Chinese have also, that the heaviest man is the luckiest, and this induces many to weigh themselves. The same fancy actuates the Chinese in their strenuous efforts to become obese, by a selection of the grossest aliments. The Malays adopt the same notion, and it certainly is in many cases a symptom both of competence and complacency. But with all this panting and toiling after unwieldiness these several people do not like that a stranger should pointedly notice it, for they have a strong dread of the effects of the evil eye. The ceremony of weighing was formerly in vogue amongst Mohametan princes in India.

The Chinese sacrifice a dunghill cock after examinations have been gone through and when they are to take a solemn oath, and burn papers on which gold leaf has been put with certain written charms.

But the first practice is a species of ordeal, or divination, intended to detect perjury. The swearer takes an axe or large knife and endeavours at one blow to sever the head of the bird from its body. If he should fail in doing this perfectly a presumption of his guilt is the consequence. The parties in a suit; and the prosecutor and defendant in every criminal case; are not allowed to take an oath, since their assertions would merely be opposed to each other. But these are subject to the ordeals, which when demanded by a party and granted often supersede all other evidence. A person losing money or property must make an affidavit or oath of the amount.

When the civil and criminal oath is to be tendered to a witness he is taken to a monastery. Five incense tapers and five waxen candles are lighted, and placed before the shrine of Booddha,—also five bunches of flowers, besides parched rice. He makes three obeisances to the image of that deified mortal. The invocation of the chief deities follows, and is repeated thrice viz., namo, tatsa, B,hakk,hawato

bathed by the pious parents by their children, and all ranks including women and children, throw water over their freinds and even on strangers and passengers in the Streets. It is said that the water used for this occasion by the King is brought from a sacred tank near the sam rae yât in Ratphree province on the west shore of the gulf of Siam. This custom is of Hindu origin.

Arahatto, Sammasam, P,hoot,thatsa, P,hoothang Saranang kachamee T,hammang saranang k,achamee, sang,khang saranang kha,chamee* and perhaps the priest gives him a sort of absolution, consisting in his repeating after him in Bali the *seenha* or *pét seen*, or the eight observances ordained for priest and such of the Laity as aspire to lead holy lives.

Panatee pata, wera manee sikk,ha pat,hang Samat,hee yanee ; not to murder or conceive malice.

2. At'heena t,hana, not to steal.

3. Kamé soomeecha chara to avoid adultery Ap,hramma çhiriya fornication with a virgin prohibited.

4. Moosa wat,ha &c. To avoid falsehood.

5. Soora Meraya machapama t,hathana, drinking of spirituous liquors forbidden.

6. Weekara B,hochana, not to eat at night.

7. Natchakee ta'va teet ta weesookat,hatsana mala k,hand,haweeli panad,hara namandana weebho sana t,hana &c., not to visit dances or attend at theatrical exhibitions, not to wear flowers, or hold them in the hand, or use perfumes.

8. Ootcha sayanamaha sayana, weranamee &c., not to sit on the place, or couch of a parent, or spiritual guide. Then from the Hat-tamnan is repeated the invocation of all the deities and spirits in their mythology beginning Sak,he kamé charoopé kheereeseek,ha rattaté &c. There is no holy water swallowed, as is customary amongst the Hindus. But it is administered when the oath of fidelity to the king is to be tendered.

The witness then repeats in the manner he best can the following oath or imprecations either in whole or in part as the case may seem to require, which a priest runs over with peculiar, and what in British Courts of Justice would be deemed indecorous volubility. By the way it may here be remarked that the length and nature of this oath is the best possible comment on that part of the Siamese

* The triad namely 1. *Buddha*. 2. The word or Scriptures. 3. The Priesthood.

character which respects veracity ; and joined to the graduated scale of punishments for breaches of it, according to the rank of the person who suffers by the breach, is not calculated to impress us with a belief that they adhere to the truth unless for the sake of convenience or when actuated by fear.

It appears likewise that parts only of the oath are deemed sufficient in particular cases.

THE OATH OR SAPATH.

I ——— who have been brought here as an evidence in this matter, do now in presence of the divine *P,hra P,hooth,hee rop* [meaning: Budd,ha] declare that I am wholly unprejudiced against either party, and uninfluenced in any way by the opinions or advice of others, and that no prospects of pecuniary advantage or of advancement to office have been held out to me. I also declare that I have not received any bribe on this occasion. If what I have now spoken be false, or if in my further averments, I should color or pervert the truth so as to lead the judgment of others astray, may the three holy existences viz., *Budd,ha*, the *Bali* [personified] and the *Hierarchy*, before whom I now stand, together with the glorious Devattas of the twenty two firmaments, punish me.

If I have not seen, yet shall say that I have seen, if I shall say that I know that which I do not know, then may I be thus punished. Should innumerable descents of the deity happen for the regeneration and salvation of mankind may my erring and migrating soul be found beyond the pale of their mercy. Wherever I go may I be encompassed with dangers, and not escape from them, whether arising from murderers, robbers, spirits of the ground, of the wood, of water, or of air, or from all the *T,hewatda* or Divinities who adore Buddha, or from the Gods of the four elements, and all other spirits.

May blood flow out of every pore of my body that my crime may be made manifest to the world. May all or any of these evils overtake me three days hence. Or may I never stir from the spot on which I now stand ; or may the (*Hatsanee*) "*lash of the sky*" [viz., lightning] cut me in twain, so that I may be exposed to the deri-

sion of the people, or, if I should be walking abroad may I be torn to pieces by either of the four preternaturally endowed Lions, or destroyed by poisonous herbs, or venomous snakes. If when in the water of the rivers or Ocean may Chárák,hé [or Alligators] Hera (the fabulous horned alligator) Mangkán [a fabulous animal which in Siamese Astronomy represents capricorn] Maché (or large fishes) devour me; or may the winds or waves overwhelm me; or may the dread of such evils keep me during life a prisoner, at home estranged from every pleasure, or may I be afflicted by the intolerable oppressions of my superiors; or may *Cholera Morbus* cause my death; after which may I be precipitated into hell, there to go through innumerable stages of torture, amongst which may I be condemned to carry water over the flaming regions, in open wicker baskets, to assuage the heat felt by *Y,haan Wetsoowan* when he enters the infernal hall of justice, [He is one of the 30 judges in hell who relieve each other alternately; and was once a king on earth] and thereafter may I fall into the lowest pit of hell. Or if these miseries should not ensue may I after death migrate into the body of a slave, and suffer all the hardships and pains attending the worst state of such a being during a period of years measured by the sand of four seas. Or may I animate the body of an animal, or beast during five hundred generations; or be born a hermaphrodite five hundred times; or endure in the body of a deaf, blind, dumb, houseless beggar every species of loathsome disease during the same number of generations; and then may I be hurried to Narok or hell and there be crucified by P,hreea yom (one of the kings of hell.)

CHAPTER XV.

OF SPECIFIC CRIMES AND THEIR PUNISHMENTS.

The successful candidate in a disputed succession to the crown, *generally* begins his reign by a display of reckless cruelties. He will be found generally to coolly rid himself of those scions of the royal stock who might thwart his views. This is effected by inclosing them in sacks and throwing them into the river, or by beating them to death with clubs of sandal wood; or when afraid of publicity, by starving them, or suffocating them privately. Siamese punishments for crimes are,—melted silver or lead is poured down the culprits throat, or his mouth is slit, perhaps sowed up, leaving only a small aperture sufficient to admit fluids.* Sometimes a cocoanut is driven into his mouth† thereby soon choking him, beheading with a sword, exposure in an iron cage, or to wild animals, the pillory, in which the culprits head is fixed betwixt two bars of an upright ladder, while his feet barely reach the ground, partial inhumation, the persons head merely appearing above ground.

Also exposure to be tossed by bull, or trodden down by elephants, and branding by slight cuts of a sword.

MURDER.

The Laws of the country have been too firmly framed to put the power of avenging blood in the hands of individuals.

The King (or a special commission) only, passes sentence of death. Three or four witnesses are sufficient to convict for this crime. Confession is sufficient to convict the accused, or if he should admit the testimony of only *one* witness against him, *resting his defence thereon*, he will be adjudged by *his original deposition*.

* An example of this last sort occurred in the Province of Kedah. But the imposter was the Malayan Raja. The man came to Penang many years after and a medical gentleman operated on his mouth and gave him a new one to his infinite delight.

† M. De la Loubere relates that one of the Siamese Ambassadors who went to Paris before his visit to Siam was so imprudent on his return to the latter country as to affirm that the stables of the King of France exceeded in splendour the Royal Palace of Bankok. His audacity was punished with death in the manner here described.

An alibi is always attempted to be proved by the accused.

The charges for certain exemptions from torture, have been mentioned. Death and fine rarely go together, murder is punished by death. The *P,hetchak,haat* or executioner asks forgiveness of the culprit, the latter repeats a few prayers in presence of a Priest, and his head is then severed from his body by the stroke of a sword.

One or more of the higher officers of justice act the Sheriff's part on this occasion. Respecting *Inquests*, when the body of a murdered person is found, the nearest officers of Police assemble and inspect it. They seize all the bad suspected characters in the vicinity and cross question them. They are confined until it may appear to the judge expedient to liberate them. The heads of Police are responsible for murders and robberies committed within their wards and if they cannot within a given time, (generally seven days,) produce the murderers or robbers or afford some information regarding them they are fined and perhaps dismissed. No subject is allowed to go armed in the country, a sign that the laws are coercive enough and it is believed sufficiently protective also.

The Tongok is a simple and very effectual way of securing criminals. A piece of wood is selected from which two prongs branch off at a slight angle, a square hole is formed in the handle or lower part, into which the hands of the prisoner being placed, they are secured by a cross bar passing betwixt them. The fork embraces his neck, and is kept firm by another cross bar. In this manner he may be marched about without trouble to those who watch him.

The common mode of treating prisoners of war until delivered over as slaves to the officers, is by fixing their heads betwixt two bamboos, formed with cross bars like a ladder; one man with this machine can manage many unruly fellows, for they are compelled to go straightforward, and the keeper retains over them the full power of a lever.*

* On one occasion about half a dozen convicts who escaped from Province Wellesley into Kedah were brought back in this manner and delivered over to me by the Siamese.

The *mai neep mæ* are two plain pieces of wood betwixt which the fingers of the accused are put. Two corresponding ends of the sticks are tied together, and the process of torture consists in forcibly endeavouring to make the two other ends join.

Mai heep kamap, another instrument of torture, or *head press*, is like the one preceding used in cases of suspected treason, rebellion, or where the accused in face of competent witnesses steadily denies the crime laid to his charge. It consists of two bars of tough wood, having knobs on them to fit to the temples. They are applied somewhat in the manner of the thumb screws.

The extremities behind the head are joined by a rope, and the executioner exerts his main force to draw the other two ends together, while the assistants strike the implement with hardened buffalo thongs to increase the pain. Branding of the feet, and hands with a red hot iron is employed to punish great offenders, especially these guilty of impiety or sacrilege.

Khai are stocks for the feet.

Sai so waist and neck chains.

Tro-un are leg irons.

For offences against decorum and breach of filial duty, and abusive language, the slipper is freely applied to the mouth, and if the offence should have been great, rattaning, and beating with a cocoa-nut shell fastened to a stick are added (*the slipper* is a Mussulman instrument of opprobrious punishment.)

THEFT.

Is punished agreeably to the enormity of the offence, by stripes imprisonment, and fining.

If the fine is not liquidated the prisoner becomes a slave.

The receiver of stolen goods is punished with the same severity, nearly, as the actual thief. For stealing certain kinds of property, such as slaves, or for inveigling children from their parents, the offender is severely fined and has one hundred lashes of the buffalo skin thong inflicted on his back. He is then marked with indelible red or black ink on his breast; care being commonly taken to make

that mark correspond with the thing, or object stolen ; should a slave have gone away willingly, he will receive thirty lashes.*

A thief will not be allowed to prosecute the person at whose suit he has been convicted.

A person who without just reason or cause accuses another of theft, and who fails to prove his charge will be fined to the amount of value of the stolen property ; one half of the fine goes to the king, the other half to the injured party ; and should the latter have been maltreated he receives $\frac{2}{3}$ ds. of it.

Stolen goods are proclaimed by beat of gong, and by information given to persons residing near the place where they were stolen ; any person who secretes property after such information is of course deemed a thief. When a householder misses property he instantly attaches criminality to the last person seen in or about the premises ; hence the Siamese are extremely cautious not to enter a house without giving due notice beforehand.

The head men of compartments of towns and divisions of districts, are held responsible for property stolen within their wards, which is a very old regulation also of Indian governments. But in order to make the whole community watch in some measure over its interests, the inhabitants of the district where the theft was committed are linked with the Police in responsibility.

The head man pays three parts of the stolen property, neighbours within 50 yards or thereabout, two parts, and those within 150 yards one part.

The Police establishments of Indian states, and of the organized governments beyond the Ganges have generally been tolerably efficient.

Thus it is obvious that freedom, is in many respects incompatible with the full exercise of those powers, which alone can make a Police system formidable and perfectly efficient.

France in Buonaparte's time furnished a memorable example of the improvement of a Police Department in the exact degree in which the liberties of the people were encroached upon and military despotism prevailed.

* In the Burman country a thief is branded or tattooed with red or black ink in a particular manner on the face or neck,

Nothing is more simple, under an irresponsible government, than to create an uncompromising, merciless, and keenly scrutinizing system of espionage and to derive from the passive subject that aid towards its efficiency which alike contributes to his personal exemption from danger and loss, and to rivet his own political chains.

Such is the case in Siam where the *Sáán* or Department of Police may be considered sufficiently coercive, where every man is commanded to be a spy on his neighbour, and where he is punished if he is known to have concealed what he ought by the laws to have disclosed.

The whole male population is portioned out into bands, under *Nai* or heads who are responsible for them, a certain number watch and continue on duty for one day, being relieved by a similar number.

They go rounds at night beating a small gong, and recommending people to beware of fire, no one must be seen out after 10 o'clock at night, under pain of being without full cause shewn imprisoned until next morning. A watchman who should suspect the owner of a house of being engaged in gaming or other forbidden practices, cannot enter by force himself. He must go for an officer, and witnesses, and bring them to enter the premises along with him.

Each large village has its *Kamnan* or *Nai Ban* who is the head. He is assisted by the 2 officers or *Kweng* and a *P,han Nai ban*, servants of Government. Small villages have each one officer of Police. The duty of the chief consists in superintending cultivation, assisting in the collection of the revenue, and taking the census of the people along with the *P,hra Satsadec*, and in settling petty causes and disputes. From his decisions appeals may be made to the nearest Court. There is nothing like the little republican system by which a Hindoo village is regulated, to be found in a Siamese one. The Siamese Government is afraid of trusting the most limited degree of authority to persons not directly in its employment.

Informers are rewarded, and severe punishments inflicted on those who do not give information of consequence.

Thieves use charms to impose, as they fancy, silence on watchmen, and dogs. One used by other persons runs thus. It is from the

Bali of *Lanca* or Ceylon .but it is considered to be of no efficacy in the avocations of a thief. Soonak, k,hatang soomang k,hanyang soo-
patee t,heetang sapp,ha mok,hang p,hantareso.

Thieves use sharp spikes of bamboo so joined together that when cast down one or two points always remain upright. These they throw in their retreat, so that pursuers may be wounded in the feet. Pit falls must not be dug without due notice having been given.*

In cases of assault and affrays where individuals may receive wounds, the judges are recommended to confine their examination to the most prominent parts of a charge. Thus if a man be beaten, and wounded with a weapon at the same time, the injury sustained by the last infliction will be principally attended to.

Where there are many defendants, which is likely to happen in the cases just mentioned, one of them may advocate the cause of the rest. By *advocating* is not meant *pleading*, but merely giving in a written statement of circumstances.

The fines for assault, correspond with the rank of the offender, since the king would otherwise *gain little* by his share of fines.

Amongst the recorded cases a Chinese trader is fined 13 Rs. for cutting another on the head, and a women for an assault and for maiming another is sentenced to pay 105,000 bea or cowries only, because she had tried to compromise matters.

A *threat* to strike with a weapon will expose the threatener to a fine of one half the value of that weapon.

A person who strikes a parent or other very near relative is pnn-
ished by branding and amputation of the hands, or if he used his feet against them, by their amputation.

As may be supposed these last noticed severe laws defeat themselves, as the affection will almost always exceed the sense of injury, and prevent redress being sought for.

Abusive language to parents, or near relatives is followed by the offender receiving a beating on the mouth with a cocoanut shell or slipper.

† This plan is frequently adopted by Penang thieves.

CHAPTER XVI.

ADULTERY,

should, according to the *letter* of the law be punished in every instance by death. But in general its infliction is not insisted on, being commuted by a heavy mulct, and minor punishments, which last are suffered almost exclusively *by the woman*.

The Adulteress is decked out in garlands of bright coloured flowers, and a mask of basket work is drawn over her face. In this attire she is led through the streets. Should however her age be under *sixteen* years, she can escape this degradation by payment of a fine of about 20 dollars, which will be appropriated to furnish provender for the King's Elephants [as if the crime contaminated the fine.]

While a faithless wife is thus liable to a severer punishment than the partner in her crime, the chaste one has no recourse at law against a faithless husband, but if he acts *otherwise* contrary to law, she may complain against him. A husband will also stand excused in the eye of the law should he kill his wife and her paramour, under circumstances sufficiently decisive of her guilt. But he may not do so having once allowed the man to escape, and it may presumed, where the offender has power on his side, that the inferior will not venture on a step which must end in his ruin. The Siamese men are not remarkable for jealousy, and owing to this circumstance the women are disposed to chastity.

The *Kot P,hra Ayakaan* contains numerous passages illustrative of the law as applicable to specific instances of Adultery; the principal of which it will only be requisite to notice.

It is stated that a *P,hreca Thai nam* (the title of an officer who waits on the King's person when he goes abroad) had seduced the wife of *K,hoon Amp,han ya song k,hraan*, and that the defendant had been sentenced to pay a fine of 20 chaang of silver or about £200. This sentence the King pronounced to be too lenient, and to prevent such a recurrence ordered a scale of fines to be drawn out which should be applicable to all ranks in the state. The Chau Krom, and

Palat Krom were ordered to promulgate the act. But in this list, from a culpable feeling probably, the *great officers* are not specified, the enactment only applying in its *letter* to their children. However it is known that the officers are themselves exposed to its penalties; the sense of justice in the judges so far counteracting the evil which would arise from the false delicacy shewn towards their men of rank,—

Sons of,		Chaangs of Silver.*
1st.	A P,hra Maha Rachak,hro of 10,000 Naa, or Fields, if convicted of Crim. Con. pays,	25
2nd.	Botta Chau P,hreea of the same rank, ..	25
3rd.	The P,hra and the Lo-ung respectively of the rank of 5000 fields,	15
4th.	Do. do. of 3000 do.	12
5th.	Lo-ung Mh-ung of 2000 do.	10
6th.	{ K,hoon of 1600 } Do. of 1400 } fields, each	8
	Do. of 1200 }	
6th.	{ Mhñ of 1000 } Do. of 800 } Do.	6
	Do. of 600 }	
8th.	P,han t,harai or inferior officers and their adherents of any intermediate rank betwixt that of 500 and of 200 naa, 2 Chaang.	
9th.	All of the rank of 5 fields, 2 Chaang.	
10th.	Other subjects according to their means.	

The King professes to take one-half of a mulct and to leave the other half to the husband of the Adulteress.

A judge or officer of a Court of Justice who is guilty of fornication with a woman who is a party in or connected with a suit at issue, will be chastised by thirty stripes of the buffalo skin thong, at three several consecutive periods and be disgraced, besides being fined according to his rank. If he confesses, one half of the fine is remitted.

* A chang is 80 *baat*, the latter being in value nearly $1\frac{1}{4}$ th sicca rupee.

SEPARATION AND DIVORCE.

If the parties mutually agree to a separation the elders of the village or neighbourhood are assembled and a *nangsúya* or written deed is executed in their presence. It is of course according to the wishes of the parties, but generally the portion which the woman brought is divided. The sons go with the mother, the daughters with the father, because the father would else be deprived of that female assistance in conducting household affairs which it is not requisite that the mother should have, she being herself capable. If Loubere was correct "the mother" *in his time* "took the *alternate* children beginning with the eldest; and the husband the rest" a practice still retained in some of the provinces.

If the husband sues for a divorce he cannot have it unless he can prove his wife to have been guilty of adultery. Should he run away from her, she takes his estate.

A wife may sue for a divorce for bad treatment from a *vicious* husband, this term however not being applicable to him as a polygamist. She takes in this case her original dowry. Polygamy may be chiefly attributed to the service a man owes his prince, which requires him to have many females to assist him in his household. Barrenness is not productive of divorce.

A man may beat his wife if unruly, and put her in chains if her fault be great. A divorce for impotency is proved by an ordeal naturally enough suggested in a case of this kind.

ELOPEMENTS.

A man who elopes with a virgin must afterwards endeavour to effect a reconciliation with her parents and relatives, and should such be effected, it is incumbent on him to perform all the ceremonies which are preliminary to a regular and open marriage.

The elders of a district or parish generally settle affairs of this nature and reconcile parties. But the man is not obliged to marry the girl, he may refuse and in this case should he not have promised marriage, a thing not easily admitting of proof in such clandestine meetings, he is if poor fined 55,000 cowries, about 8½ Rs. A sedu-

ter under promise of marriage is amerced 300,000 cowries, and if under promise, in addition to that of marriage, of large presents, 550,000 cowries. The king takes one half of the fine, the relatives of the girl the other.

The king, here above the law, takes by force the daughters of his subjects. The parents do not seem to regret or resent such tyranny as they ought; since they generally participate in the exaltation of their daughters.

A rape committed on a virgin is punished by corporal punishment and fine, if on a child by a severer fine and corporal infliction; and by death if the victim should die.

Most of the Hindu ordinances on this head are I believe to be found in the Bali work entitled. *T,hotsa kama bot* or the *ten volumes* under the chapter entitled *Kámé Soomeechu charawé ramánee seekk,ha pa,thang sama t,heeyamee*.

The Siamese never banish culprits according to the European acceptation of the term, differing essentially in this instance from the Chinese. But the latter can better afford to lose subjects.

The Siamese do however occasionally take offenders to sea and set them adrift on a raft. Incest is punished in the latter manner.

Women are subjected to equal degrees of torture as men. But should a woman be pregnant she is confined until her delivery, and then a reasonable time being past she receives the awarded punishment.

Judges who inflict corporal punishment on a pregnant woman are punished by a superior tribunal.

CHAPTER XVII.

PRISONS &c.

The prisons in Siam are of brick or wood and they are dirty and pestilential. The Rolls are called four times every night to which each prisoner must reply, convicts are driven out to public works.

The inmates are scantily fed with rice, and supplied with some coarse clothes by government.

The rich supply themselves, if men who have once got into a *Siamese* jail, whatever their former condition may have been, can be so called.

SLAUGHTERING OF ANIMALS.

The *slaughtering of animāls* is forbidden by the Buddhist religion, but the temporal inhibition is merely intended as a salvo to the consciences of the T,hai gourmands ; cattle and other animals are slaughtered for food beyond the town. If they take bestial life away within the precincts of the town, castigation of the offender according to the Buddhist law for the first two offences, and death for the last is inflicted. But it is well known that great laxity of law prevails in Siam in these instances. Strangers are not exempted from this regulation, but they may kill poultry &c. *in their houses*.

It is well known that about the period of Mr. Crawford's mission a commander of an English vessel was beaten and nearly scalped for an oversight which infringed this law. From some cause he killed a horse which was on board his vessel, and threw it into the river, not far from the Palace. But it may be supposed that the act was partly construed as an insult to the King.

In their Bali work Milinda Raja, the degrees of guilt are whimsically enough laid down under the head *Ongk,hapana teebata*, and are contained in the Chapters of Buddhist ordinances relative to this subject entitled.

Pana teebata weeramanev viz.,

1. Pano, reflecting on killing animals.
2. Pana sanyee, premeditating and determining its death.

3. Wachaka cheettang, proceeding for the purpose of killing
4. Upamano, approaching it.
5. Tena maranang, killing it.

The Butcher before he slays beseeches the spirit supposed to be shut up in the body to seek another happier abode. Certain spirits are invoked on such an occasion, such are the P,hreeya Yommaraat and P,hreea Rong mù-ung.

The punishment for manslaughter may be commuted by a heavy fine, attended in many cases by imprisonment. But death is the sentence the law awards. Little distinction is made where a person has killed another by accident.

SUICIDE.

Self-murder is not unfrequent and is attributed by the natives to love or ambition disappointed.

The Siamese on such occasions prefer hemp or steel, to gunpowder.

A native of Hindustan, particularly of the warlike classes, uses the musket if he can get one, and will frequently revenge on himself what a native of another country would inflict on the object which caused his ebullition of passion. A slight fit of jealousy, as many may have witnessed, nay a slight quarrel with a friend, will often urge a native of Hindustan to put an end to his life.

M. de la Loubere was in error when he asserted that the Siamese hang themselves from a religious or superstitious motive, at least, in so far as he inferred that it is usual.

The first principle of their belief, is that the shedding of blood is a heinous offence, and they are not of a temperament to easily acquiesce in self mortification or self destruction, but they do sometimes from a feeling of disgrace arising from false accusations hang themselves.

MODE OF PROCEDURE WHERE WITNESSES ARE
NOT PROCURABLE.

It is in Siam, as in every despotic country, that not only guilt but its semblance is punished, without much regard to proof.

In criminal cases, in general, where the presumption of guilt is great, and witnesses are not procurable, the accused suffers corporal punishment, 30 strokes of the rattan being inflicted on his back three several times unless he confesses ; should he bear the number patiently and without confessing the charge, his accuser undergoes the same operation, an admirable mode for preventing false accusations, but radically unjust as applicable to specific cases.

In all criminal cases, with exception of treason and rebellion, the offender alone bears the whole burden of guilt.

But in these latter instances all the members of a family generally suffer for the delinquency of one and are made slaves, their property being confiscated, or they are slain indiscriminately.

Confession in minor criminal cases mitigates punishment.

The king of Siam pretends to be the *father* of his people and out of the tender mercies of a parent sometimes flogs these his adopted children to death.

But any one of his officers who undergoes such parental chastisement, and recovers, is not considered to have been disgraced by the infliction !

DECISION OF A JUDGE.

This chapter will be now concluded with a judicial case extracted from the Bali and consequently attributable to a Hindu code, but which is merely considered by the Siamese as an amusing passage, not as a precedent.

P,hrammaneechan, a Brahman, having gone to a house in the vicinage of his own to ask for some provisions found that the master had gone abroad. But his wife duly and religiously presented food to him. It happened however that in her haste to descend the stair she fell, and being with child a miscarriage ensued ; in the meantime her husband returned, and observing the mischief which

had happened, he accused the Brahman of having been the author of it. He accordingly dragged him away towards the hall of justice.

While they were walking towards it, a man on horseback came full speed towards them exclaiming that his horse had run off with him and desiring some one to stop it. The Brahman lifted up a stone and threw it so surely that it hit a leg of the horse and caused him to halt. The rider forgot now his obligation to the Brahman in his dread that his horse was ruined. He accused the Brahman therefore of malice, and joined the party.

The three having advanced some distance, the Brahman overwhelmed with shame, watched an opportunity, and running up a rising ground precipitated himself from a rock with intent to kill himself; unfortunately he fell on a poor peasant, and the shock killed him, the former being only slightly hurt. The son of the poor man now accused the Brahman of murder, and joining the two other complainants they all reached the Court house.

The judge on hearing the case passed the following decision. He who complains that he has lost a child, let him give over his wife in charge to the Brahman until she shall prove again pregnant. He who demands another horse let him have one, if he chuses, at the Brahman's expence, but as his tongue misled the Brahman let it be cut out of his mouth. As for the youth who complains that he has lost his father, let him give his mother in marriage to the Brahman, and thereby obtain another.

I. GENERAL INDEX.

A

	Page
<i>Adats</i> of the Javanese	128
Administration of Netherlands India	127
Adultery amongst the <i>Binua</i>	268, 274
<i>Mintira</i> *	ib.
Cochin Chinese	62
Siamese	347
AGRICULTURE,	
of the <i>Binua</i>	255, 271
Cochin Chinese	54
Ind. Arch.	13
<i>Mintira</i>	320-2*
superstitions of the <i>Mintira</i> connected with,	ib.
of Siam, (see <i>Siam</i>)	335
in Java (see TEMMINCK)	197-205
D'ALMEIDA, Dr. memo. on Gutta Percha,	7
Amulets of the <i>Mintira</i>	318
Anam, see Cochin China.	
Animals of the Archipelago.	8
Cochin China.	56
used by the <i>Binua</i> of Johore.	257
by the <i>Mintira</i>	332*, 257
<i>Sabimba</i>	296, 347*
killing of in Siam	426
Annual Remittances by Chinese of Singapore to China	35-7
ANSTED, Prof., remarks on the coal of Ligor and Kedah.	154
Anthracitic coal.	147
Apostasy, Siamese.	357
Army of Cochin China	111
Neth. Ind.	141
<i>Arrack tampui</i> , used by the <i>Mintira</i> &c.	260
Arrows, poisoned; of the <i>Mintira</i>	272
ARTS,	
of Cochin China	65
of the <i>Binua</i> , (see <i>Binua</i>)	254, 272
<i>Mintira</i> , (see <i>Mintira</i> .)	271
Asia, physical relation of the Archipelago to the continent of,	2

B

Banjarmassing, Dyaks of (see CONTENTS p. iii.)	30
<i>Bassá kapor</i> or Camphor language of Johore.	263
Batavia, population of	129
description of	"

* In the sentence, p. 268, beginning " amongst the *Mintira* it is &c.," for it read *adultery*.

salubrity of	..	..	..	..	..	..	..	197
courts	..	..	..	..	..	..	..	141
Batavian Society of arts and Sciences	..	..	..	..	..	..	..	273
Batins of Johore	..	..	..	..	..	..	..	275
of the <i>Mintira</i>	..	..	..	..	..	..	..	(see INDEX II. <i>Batin</i> .)
Battam, ethnology of (see CONTENTS p. viii.)	..	..	..	..	..	..	..	337*
Battas, character and religion of, compared with those of the Dyak and Binua	..	..	..	..	..	..	..	280-3, 292-3
<i>Batu Berlayer</i> , geology of	..	..	..	..	..	..	..	98
<i>Batu Pahat</i> riv., visit to,	..	..	..	..	..	..	..	244
<i>Bermun</i> , <i>Gunong</i> , Wishing Place on	..	..	..	..	..	..	..	248
tribes,	..	..	..	..	..	..	..	248
personal appearance,	..	..	..	..	..	..	..	249, 252
dress,	..	..	..	..	..	..	..	252
furniture and utensils,	..	..	..	..	..	..	..	254
agriculture of,	..	..	..	..	..	..	..	255
snakes used as food by,	..	..	..	..	..	..	..	257
snare for catching wild animals,	..	..	..	..	..	..	..	258
character of, great sensitiveness,	..	..	..	..	..	..	..	268
marriage,	..	..	..	..	..	..	..	270, 322*
birth,	..	..	..	..	..	..	..	271, 323*
naming,	..	..	..	..	..	..	..	ib.
burial,	..	..	..	..	..	..	..	271, 325*
<i>sumpitan</i> or <i>timiang</i> described,	..	..	..	..	..	..	..	272
<i>Batins</i>,	..	..	..	..	..	..	..	275
religion,	..	..	..	..	..	..	..	275, 282
Poyangs,	..	..	..	..	..	..	..	277, 283
spirits,	..	..	..	..	..	..	..	277
<i>sawi</i> , <i>besawi</i>,	..	..	..	..	..	..	..	ib.
(see <i>Mintira</i> , <i>Besisi</i> , <i>Udai</i> .)								
<i>Besisi</i> , orang (Mal. Pen.) see <i>Bermun</i> tribes	..	..	..	..	..	..	..	146
early betrothals amongst.	..	..	..	..	..	..	..	246
<i>Biduanda Kallang</i> , orang (Johore) (see CONTENTS p. vii.)	..	..	..	..	..	..	..	68
<i>Bintang</i> , island of, shape and coasts,	..	..	..	..	..	..	..	73
geology of	..	..	..	..	..	..	..	274
<i>Bintara</i> of <i>Boko</i> (Johore)	..	..	..	..	..	..	..	258
<i>Binua</i> of Johore (see CONTENTS p. vi.)	..	..	..	..	..	..	..	2 lb.
Birds used by the <i>Binua</i> for food	..	..	..	..	..	..	..	101
Bird lime used by the <i>Binua</i>	..	..	..	..	..	..	..	270
Bird nests rocks of <i>Karrang Bollong</i>	..	..	..	..	..	..	..	323
Births	..	..	..	..	..	..	..	344
<i>Binua</i> of Johore	..	..	..	..	..	..	..	298
<i>Mintira</i>	..	..	..	..	..	..	..	98
<i>Orang Sletar</i>	..	..	..	..	..	..	..	75
<i>Orang Sabimba</i>	..	..	..	..	..	..	..	31
<i>Blakang Mati</i> , geology of,	..	..	..	..	..	..	..	244
Bleeker, P., on the popula tion of Java	..	..	..	..	..	..	..	80
<i>Blians</i> of Dyaks of Banjarmasin	..	..	..	..	..	..	..	192
<i>Boko</i> or <i>Pauw</i> , in Johore, visit to,	..	..	..	..	..	..	..	See <i>Rafflesia Patma</i> , <i>Guttah Percha</i> , <i>Vegetation</i> , <i>Indian Archipelago</i> , <i>Binua</i> , <i>Cochin China</i> , <i>Sabimba</i> , <i>Sletar</i> .
<i>Borneo</i> , coal of	..	..	..	..	..	..	..	(For names of plants, see Index II. throughout)
<i>Bosch</i> , general van der, governor of Neth. India	..	..	..	..	..	..	..	Brahmans of Siam, sun worship by
BOTANY. See <i>Rafflesia Patma</i> , <i>Guttah Percha</i> , <i>Vegetation</i> , <i>Indian Archipelago</i> , <i>Binua</i> , <i>Cochin China</i> , <i>Sabimba</i> , <i>Sletar</i>.	..	..	..	..	..	..	..	Breeding of cattle in Java
(For names of plants, see Index II. throughout)	..	..	..	..	..	..	..	Burial, (see Death and Obsequies.)

Bugis, personal appearance of compared with the Binua of Johore..	506
<i>Byang Lassa</i> of the <i>Mintira</i>	223

C

Camels in Java	306
Camphor language of Johore	<i>ib.</i>
Camphor, collection of in Johore	263
Canoes of the Binua	271
CAPELLEN, Baron van der, Gov. of Neth. India.	189
Capsules of Gutta Percha for vaccine virus	28
Catalogue of the shells of Singapore	239
Cattle, breeding of in Netherland Indie.	205
Cerithium lineolatum (Singapore)	236
Chamber, Orphan in Netherlands India	137
of Accounts	140
Character of races of Indian Archipelago	15
Dyaks of Banjarmassing	30
of the Binua	267-8-9
<i>ib.</i> compared with Malay	269
<i>ib. ib.</i> Batta and Dyak	292-3
<i>Mintira</i>	333 ^c -4 ^c
of the Cochin Chinese.	112-115
<i>Chawát</i> of Binua &c.,	252
Children, <i>Binua</i> , mode of bringing up	266
<i>Mintira</i>	330
Siamese (see <i>Parents and children</i>)	
Chinese, colonise Cochin China	112
settlers in Cochin China	112
in the Ind. Arch. gradual spread of	325
corrupting influence of,	20
in the Straits Settlements, modifications of English law required for	<i>ib.</i>
in Siam,	335
Chinese Immigrants in Singapore, Annual remittances by	112
Christianity in Cochin China	116
diffusion of in Indian Archipelago	21
Cinnamon, Govt. culture of in Neth. India.	202
Circumcision amongst Binua of Johore	271
Clays of Singapore	864
Climate of Cochin China	54
Indian Archipelago	4
Cloth of tirap bark	253
Cloves, Govt. cultures of in Netherland India.	203
Coals of Labuan, specimens of	78
Pulo Chirmin	79
Borneo Proper	80, 90
Formosa	80
Malay Peninsula (see <i>Low, CONGALTON.</i>)	90, 145, 353*
discovery of (See <i>CONTENTS p. iv</i>)	151
Sumatra	153
Cochineal, Govt. Cultures in Neth. India.	202
Cochin China, Details respecting, by Mgr. Le Fevre [See <i>CONTENTS p. iv.</i>]	40
Coffee, govt. culture of in Neth. India	199
College for Javanese Priests	140
Conchology of Singapore and its neighbourhood (See <i>TRAILL</i>)	225
Coneubinage amongst the Siamese	346

Condition of the women of Cochin China	..	..	..	..	63
of the Binua	..	..	..	..	266
of inhabitants of Indian Archipelago	..	..	..	..	15
of the Orang Binua of Johore	..	..	..	..	266
CONGALTON, Captain, Examination of the Coast of the Peninsula from P. Mu- tiara to P. Panjang in search of coal deposits in No- vember 1847. (See CONTENTS p.)					354.
Correspondence	..	..	..	..	155
Cotton, govt. culture of, in Neth. India	..	..	..	..	204
Council of the Indies	..	..	..	..	136
Courts and Laws of Neth. India	..	..	..	..	139
in Java	..	..	..	..	137
Country, of the Binua.	..	..	..	..	246
Bermun tribes.	..	..	..	..	<i>ib.</i>
Udai.	..	..	..	..	<i>ib.</i>
Jakun.	..	..	..	..	<i>ib.</i>
Mintira.	..	..	..	..	<i>ib.</i>
Sakai.	..	..	..	..	<i>ib.</i>
Besisi.	..	..	..	..	<i>ib.</i>
CRAWFURD, J. rejects notion of general Polynesian language,					171
Crimes and punishments amongst the Binua of Johore.					274
Siamese (see Siam)					
Culture and finances of Netherlands India.	..	..	..	..	129
Cultures, Govt. in Java.	..	..	..	..	189, 185, 193
Customs of Indian Archipelago diversity of	..	..	..	..	12
Cochin Chinese.	..	..	..	..	63
<i>Binua.</i>	..	..	..	..	<i>ib.</i>
<i>Mintira.</i>	..	..	..	..	<i>ib.</i>
<i>Sletar.</i>	..	..	..	..	34.
<i>Sabimba.</i>	..	..	..	..	396, &c.-348* &c4
<i>Biduanda Kallang</i>	..	..	..	..	300
<i>Muka kuning</i>	..	..	..	..	337.
Siamese (see Siam.)					
Dyaks of Banjarmassing	..	..	..	..	30

D

DAENDELS, Government of, in Netherland India.	..	..	..	..	189
<i>Danlek</i> (Johore) durian grove of,	..	..	..	..	259
Death and obsequies, Dyaks of Banjarmassing..	..	..	..	..	30
Siamese,	..	..	..	..	350, 361, 364-8
Binua	..	..	..	..	270
<i>Mintira,</i>	..	..	..	..	270, 325*
<i>Muka Kuning,</i>	..	..	..	..	339*
<i>Sabimba,</i>	..	..	..	..	297, 348*
<i>Biduanda Kallang,</i>	..	..	..	..	300
<i>Sletar,</i>	..	..	..	..	344*
Deer of Johore,	..	..	..	..	257
Description of the town of Rhio	..	..	..	..	69
Dhemang, administration of the	..	..	..	..	131
Different cultures,	..	..	..	..	197
Diseases amongst the Binua	..	..	..	..
Mintira	..	..	..	..	330*
Divisions of Cochin China	..	..	..	..	51
Divorce, Binua	..	..	..	..	268
Siamese					

Dogs of the Binua	..	..	..	..	251
Dreams, sacrifices from, (Dyaks)	..	..	..	..	32
Dress of Cochin Chinese	..	..	..	..	62
Dyaks of Banjarmassing	..	..	..	..	30
Binua	..	..	..	..	252
Mintira	..	..	..	..	252
Drinking of the Dyaks of Banjarmassing	..	..	..	..	30
Duclos, Rev. M., arrest and death of, in Cochin China	..	..	..	..	127
Durian groves of the Binua of Johore	..	..	..	..	239
Danlek	..	..	..	..	<i>ib.</i>
Dusuns of the Mintira, names of, <i>note</i>, ..	..	..	..	..	324 ⁴
Dutch possessions in Ind. Arch. general view of [see CONTENTS p. v]	..	..	..	..	127
Dyaks compared with the Binua, Batta and Malays	..	..	..	..	292-3
of Banjarmassing [see CONTENTS p. iii]	..	..	..	..	30

E

Earthquakes in Java.	..	..	..	57
Ternate.	..	..	..	168
Timor	..	..	..	<i>ib.</i>
and eruption in Ternate.	..	..	..	<i>ib.</i>
Ecclesiastical system in Neth. Ind.	..	..	..	141
<i>Echina</i> (Singapore.)	..	..	..	238
Education in Netherland India.	..	..	..	140
Siam.	..	..	..	379, 382
England, influence and duty of, in Ind. Arch.	..	..	..	21
English Government of Java.	..	..	..	189
ETHNOLOGY, see <i>Biduanda Kallang</i> ,				
<i>Binua</i>				
<i>Cochin Chinese</i>				
<i>Dyaks</i> .				
<i>Karrang Bollong (Javanese)</i>				
<i>Muka Kuning, Orang</i> .				
<i>Rhio</i> .				
<i>Sabimba, Orang</i> .				
<i>Siamese</i> .				
<i>Sletar, Orang</i>.	..	..	..
of Ind. Arch. (see CONTENTS p. vi.)	..	..	..	171
Johore Archipelago (see CONTENTS p. viii.)	..	..	..	336 ⁵
Etiquette amongst the Siamese.	..	..	..	382
European influence in the Ind. Arch.	..	..	..	11
land owners in Java, bad influence of,	..	..	..	132
Expenditure, public, of Netherland India.	..	..	..	181
Mintira	..	..	..
English Translation, Malay Poem.	..	..	..	38

F

Falling in of a mountain in Timor	..	..	..	151
Family manners of the Binua	..	..	..	266
Feasts of the <i>Mintira</i>	..	..	..	260
Death, of the Dyaks of Banjarmassing	..	..	..	31
Funeral, of the Siamese	..	..	..	365
Marriage, of <i>ib.</i>	..	..	..	373
Festival, annual ploughing of <i>id.</i>	..	..	..	338
Finances of Neth. India.	..	..	..	138

Fish ponds of Karrang Bollong	..	..	..	101
Fish used by the Binua	..	..	..	256
Fishing of the Binua	..	..	..	256
FOOD of the Binua of Johore	..	..	..	254
Cochin Chinese	..	..	..	63
<i>Orang Sletar</i>	..	..	..	343*
<i>Orang Sabimbá</i>	..	..	..	296-348*
Forests, Govt. in Neth. India.	..	..	..	205
Formation of the Monarchy of Cochin China	..	..	..	49
Formosa, specimens of coal from	..	..	..	80
Fruits cultivated by the <i>Binua</i>	..	..	..	259
wild, used by <i>ib.</i>	..	..	..	259
the <i>Mintira</i>	..	..	..	380*
Future world, <i>Mintira</i>,	..	..	..	325*
GEOGRAPHY see <i>Asia, Bintang, Batavia, Indian Archipelago, Cochin China, Siam, Temminck, Java, Binua, Banjermassing, Rhio, Malay Peninsula, Karrang Bollong, Johore.</i>				

(For names of places see INDEX of NAMES throughout.)

G

<i>Gaga</i> or <i>ladang</i> cultivation in Java.	..	..	..	197
Gambling houses at Rhio.	..	..	..	70
Farms, policy of	..	..	..	256
Game used by the Binua.	..	..	..	342
Gardens, Siamese.	..	..	..	188
General Daendels of the Dutch in the Indian Archipelago.	..	..	..	51
Geographical position and divisions of Cochin China.	..	..	..	73
GEOLOGY and MINERALOGY.				
of Bintang.	..	..	..	73
Archipelago, influence on distribution of islands, on climate and vegetation.	..	..	..	<i>ib.</i>
Singapore, notes on by Colonel Low.	..	..	..	84
Malay Peninsula, plutonic action.	..	..	..	165
iron masked rocks.	..	..	..	166
iron dykes in granite.	..	..	..	167
(see <i>coal, anthracite, &c.</i>)				
Geometrical method of exhibiting the proportions of the different parts of the head	..	..	..	350*
<i>Gilondang</i> (mus. inst. of Binua.	..	..	..	276
Gold from Pankallan Bukit (Muar.)	..	..	..	81
and Tin from Gongong (Johore.)	..	..	..	<i>ib.</i>
Government of Cochin China.	..	..	..	109-112
Java (see TEMMINCK.)	..	..	..	136
Governor General of Neth. Ind.	..	..	..	136
Governors (Dutch) of Sumatra, Borneo, Celebes and Amboyna.	..	..	..	17
Governments of the Ind. Arch., present degeneracy of native.	..	..	..	12
divers forms of,	..	..	..	273
of the Binua of Johore.	..	..	..	84
Granite of Singapore.	..	..	..	154
Gurbie or Temah coals and associated beds of Ligor and Kedah.	..	..	..	22
Gutta Percha, article on by Dr. OXLEY, [see CONTENTS.]	..	..	..	78
memo. by D'ALMEIDA.	..	..	..	261
trees in Johore.	..	..	..	<i>ib.</i>
mode of procuring, by the Binua.	..	..	..	362
produce of a tree.	..	..	..

H

Habits and customs, historical value of,	175
Handel Maatschappij of Neth. India.	191
Hantu or spirits of the Mintira	307
(see INDEX II. for names of Hantus.)	
Harbours of Cochin China	57
Head, geometrical method of exhibiting the proportions of the different parts of,	350*
Hindu civilization of Indian Archipelago	11
History of Indian Archipelago, great eras of	9
rise of dominant nations	11
Binua (Johore)	279
Hogs, wild, used by the Binua	256
modes of taking.	ib.
Horses, Govt. stud. in Neth. Ind.	206
Houses of Cochin China.	63
and household goods of the Binua.	253
Bermun tribes.	254
Human life and industry in the Indian Archipelago.	12
sacrifices amongst the Dyak of Banjarmassing	32
Hunting by the Binua	256
Husband and wife, social and legal relations of, amongst the Siamese,	346, 348, 352, 375, 377, 379
Binuas.	266
Cochin Chinese.	63

I

Implements used by the Binua	271, 253
Mintira	330*
Orang Sletar	343*
Imports in 1835 into the Dutch possessions in the Ind. Arch. . .	208
1843 ditto ditto	212 213
Incantations and invocations of the Mintira	308
For Defence (<i>Pendinding</i>)	309
Love (<i>Pengaseh</i>)	310
Sweetness (<i>Pimanis</i>)	311
Subjection of others (<i>Panundo</i>)	312
Abasing of others (<i>Chucha</i>)	313
Rendering enemies speechless (<i>pemáta lidá</i>)	314
Hatred (<i>pebinchi</i>)	315
Indian Archipelago, the present condition of [see CONTENTS p. iii.]	I
Indigo, culture of in Netherland India	201
Industry of the Dyak of Banjarmassing	34
human, in Indian Archipelago	12
Binua of Johore (see Binua)	
Inhabitants of Cochin China	60
Inheritance, amongst the Siamese	344, 351
Binuas	274
Invulnerability, belief in amongst the Mintiras	319
Iron pyrites in Ligor and Kedah	164
Ironstone of Singapore	93
Islands of the Indian Archipelago, influence of the geological development of Asia upon the distribution of	4

J

<i>Jakun</i> , orang, (Mal. Pen.)	..	..	..	246
Java, earthquakes in,	..	..	..	77
population of,	..	..	..	129
table of, by P. BLEEKER.	..	..	..	75
(see TEMMINCK.)	..	..	..	130
Javanese Priests,	..	..	..	140
college for,	..	..	..	<i>ib.</i>
maintenance of,	..	..	..	<i>ib.</i>
pilgrimage of, to Mecca.	..	..	..	<i>ib.</i>
language, chair for, in Royal Academy at Delft.	..	..	..	144
<i>Jewajewa</i> or <i>dewadewa</i> (Binua.)	..	..	..	279
<i>Jinnang</i> of the Indau (Johore.)	..	..	..	274
<i>Jin Bumi</i> or Earth Spirit of the Binua.	..	..	..	275
Johore, Binua of, (see Binua)				
archipelago of,	..	..	..	336*
rivers and mountains of,	..	..	..	242
(see orang Sabimba, o. Biduanda Kallang, o. Sletar.)				
Journey through Johore.	..	..	..	242-5
Judicial system of Neth. Ind.	..	..	..	137

K

<i>Kachang</i> , culture of in Java	..	..	..	197
<i>Kapas</i> (cotton) culture in Java	..	..	..	197
Karrang Bollong (in Java) and its Birds nest rocks [See CONTENTS p. v]	..	..	..	101
Kayu Kamuning coal	..	..	..	146-160
Kings of Cochin China	..	..	..	50-109
of Siam (see <i>Siam</i>)				
Kottas of the Dyak of Banjarmassing	..	..	..	34

L

Labuan, coal of	..	..	..	78
Ladangs or plantations of the Binua and Bermun tribes (M. P.)	..	..	..	255
Land tax in Java	..	..	..	132
Siam	..	..	..	336
tenure and rights in Siam	..	..	..	335
Language, growth and changes of	..	..	..	173
ethnological value of	..	..	..	174
great evidence of similarity of human life in all nations..	..	..	..	180
camphor or <i>bássá kápor</i> of Johore	..	..	..	263
Malay, remarks on	..	..	..	38
of the Binua	..	..	..	289
Orang Sletar	..	..	..	343*
of Indian Archipelago diversity of	..	..	..	12
of Anam	..	..	..	112
Lapidified coal in Ligor and Kedah	..	..	..	162-4
Laterite, Col. Low upon,	..	..	..	93
Laws and courts in Netherland India	..	..	..	139
of Siam, treatise on the [See CONTENTS p. ix.]	..	..	..	329
of the Ind. Arch. and Eastern Asia	..	..	..	321
English, necessity of adapting to religions of Asiatics in the Straits Settlements	..	..	..	<i>ib.</i>
of Cochin China	..	..	..	109

LE FEVRE, Mgr.

Details respecting Cochin China. (See CONTENTS p. iv.)	49,	109
Narrative of events connected with arrest of, in Cochin China		119
Life and industry, human, in Indian Archipelago	.. .. .	12
Life of the Sea marshes, beaches, and banks	.. .. .	8-9

LOGAN, J. R.

The Present Condition of the Indian Archipelago [see CONTENTS p. iii.]		
Shair Bidasari, a Malay Poem with an English translation and notes		93
Discovery of coal in Ligor and Kedah on the west coast of the Malay Peninsula [See CONTENTS p. vi.]	.. .. .	151
Introductory remarks to a series of contributions to the ethnology of the Indian Archipelago. [See CONTENTS p. vi.]	.. .. .	171
The <i>Orang Binua</i> of Johore. [See CONTENTS p. vii.]	.. .. .	242
Physical characteristics of the <i>Mintira</i>		294
The <i>Orang Sabimba</i> of the extremity of the Malay Peninsula [See CONTENTS p. vii.]	.. .. .	295
The <i>Orang Biduanda Kallang</i> of the river <i>Pulai</i> in Johore. [See CONTENTS p. vii.]	.. .. .	299
The <i>Orang Sletar</i> of the rivers and creeks of the Old Straits and estuary of the Johore. [See CONTENTS p. vii.]		
Table of measurements illustrative of the physical peculiarities of <i>Mintira</i> , <i>Biduanda Kallang</i> , and <i>Sabimba</i>	.. .. .	305
The superstitions of the <i>Mintira</i> , with some additional remarks on their customs [See CONTENTS p. viii.]	.. .. .	307
Visit of a party of <i>Orang Mintira</i> to Singapore	.. .. .	332-6
The ethnology of the Johore Archipelago.—I. the <i>Orang Muka Kuning</i> of Battam [See CONTENTS p. viii.]	.. .. .	336*
The laws of the Indian Archipelago and Eastern Asia	.. .. .	321
Low, Lieut. Col.,		
Notes on the geology of Singapore and adjacent islands, [See CONTENTS p. iv.]	.. .. .	84
Notes on the coal deposits of the Siamese Coast between Pinang and Junkceylon [See CONTENTS p. vi.]	.. .. .	145
On the Laws of Muung Thai or Siam [See CONTENTS p. ix.]	.. .. .	327
Low's Island	.. .. .	353*
<i>Lulumut</i> , gunung in Johore, tradition connected with	.. .. .	278
Luxuriance of vegetation in the Indian Archipelago	.. .. .	5

M .

Madura , population of,	129
Mahomedan civilization in the Indian Archipelago	.. .. .	11
Malay Poem	.. .. .	38-48
pantuns	.. .. .	150, 224
language, harmony of,	.. .. .	38
chair for at Delft	.. .. .	144
character, compared with the <i>Binua</i>	.. .. .	269
relation of, to the <i>Binua</i>	.. .. .	285
trade with the <i>Binua</i>	.. .. .	ib.
oppress and defraud the <i>Binua</i>	.. .. .	ib.
relation of to the <i>Mintira</i>	.. .. .	323*
superstitious practices when woman dies in child birth	.. .. .	362
Malay Peninsula		
plutonic action in,	.. .. .	165
(See <i>Battam</i> , <i>Berimun</i> , <i>Binua</i> , <i>Binlang</i> , <i>Biduanda Kallang</i> , <i>Coal</i> , <i>Conchology</i> , <i>Congallon</i> , <i>Gold</i> , <i>Johore</i> , <i>Muka Kuning</i> , <i>Mintira</i> , <i>Pulo Timukul</i> , <i>P. Chikokoh</i> , <i>P. Tokong</i> , <i>P. Lankaw</i> , <i>P. Piningat</i> , <i>P. Besar</i> , <i>P. Pa-</i>		

<i>mangil, P. Tioman, P. Lontar, P. Panjang, P. Bouton, Singapore, Sakai, Sabimba, Rachado, Rhio, &c.)</i>			
Malacca, tin mines of,	..	..	77
<i>Magilus antiquus</i> (Singapore)	..	..	238
<i>Manes</i> of parents and ancestors, reverence of Siamese for	..	..	367
Mandarins of Cochin China	..	..	110
Manners and customs (see <i>customs</i>)			
Marriages of the <i>Binua</i> of Johore	..	..	270
<i>Mintira</i>	..	..	322*
Siamese	..	..	345, 9
Orang Sabimba,	..	..	348*
Sletar	..	..	344
Muka Kuning	..	..	338*
ceremonies of the son of Raja of Rhio	..	..	71
<i>Natarum</i> , empire in Java, administration of,	..	..	192
Measures used by the <i>Mintira</i>	..	..	330*
Medical service in Neth. Ind.	..	..	141
MEDICINE amongst the <i>Binua</i> and superstitions connected with it	..	..	276
<i>Mintira</i>	..	..	277
Biduanda Kallang	..	..	300
Sabimba	..	..	298
Military service in Neth. Ind.	..	..	141
Minerals of Cochin China	..	..	54
Mines, tin, of Malacca	..	..	77
<i>Mintira</i> , orang, (M. Pen.)	..	..	246
physical characters	..	249, 252,	294
dress	..	..	252, 3
household furniture and utensils	..	..	254
food of	..	..	255
use of tobacco by	..	..	..
superstitions and customs of [see CONTENTS p. viii.]	..	..	307
agriculture of	..	..	255
snakes used as food by	..	..	257
snares and pits for catching wild animals	..	..	258
great feasts in the fruit season	..	..	260
adultery, punishment of	..	..	268
character of,	..	268, 293*,	4*
marriage	..	..	270
monogamy	..	..	270
birth	..	..	ib.
naming	..	..	ib.
burial	..	..	ib.
sumptuous described	..	..	328*
oppression of, by the <i>Orang Rawa</i> ,	..	273, 328*	..
inheritance	..	..	274
<i>Batins</i>	..	..	275
religion, schamanism	..	..	275, 282
<i>Poyangs</i> or schamans	..	..	277, 283
spirits	..	..	277, 307
<i>sawi, besau</i>	..	..	277
spells, <i>tuju</i>	..	..	308
incantations	..	..	ib.
amulets	..	..	318
wishing places	..	..	ib.
superstitions of cultivation	..	..	320
future world	..	..	325
medicines used in fever, jaundice, after child birth.	..	..	277
origin of fogs and clouds	..	..	263

divisions of time	..	..	283
spots in the moon, kunduri or moon-woman	..	..	<i>ib.</i>
eclipses, sun-woman	..	..	<i>ib.</i>
stars the daughters of the moon	..	..	<i>ib.</i>
mad persons killed	..	..	<i>ib.</i>
relation of the Malays to the Mintira	..	..	328*
constitution of society, training of children	..	..	330*
measures, music, weapons, diseases	..	..	<i>ib.</i>
fruits used, varieties of paddy	..	..	<i>ib.</i>
names of dusuns	..	..	324* <i>note</i>
(see CONTENTS p. viii. <i>the superstitions of the Mintira.</i>)			
Missionaries in Cochin China	..	..	117-8
Monkeys used as food by the Binua	..	..	257
Mountains of Cochin China	..	..	33
<i>Muka Kuning</i> , orang (M. Pen.)	..	..	337*
Mushrooms, poisoning by	..	..	81
Music and musical instruments of the <i>Binua</i>	..	..	..
<i>Mintira</i>	..	..	330*

N

Names, of persons and places, historical and ethnological importance			
of ..	..	..	223*, 249*
of <i>Mintira</i>	..	..	324*
<i>Orang Sletar</i>	..	..	346*
<i>Sabimba</i>	..	..	349*
<i>Muka Kuning</i>	..	..	339*
<i>Besisi</i>	..	..	325*
<i>dusuns of the Mintira</i>	..	..	324*
(see INDEX II. throughout)			
Naming, <i>Binua of Johore</i>	..	..	271
<i>Mintira</i>	..	..	323*
<i>Natica</i> (Singapore)	..	..	285
Navy of Netherlands India	..	..	141
Netherland India (see TEMMINCK)	..	..	129
NEUBRONNER, T. Esq., on tin mines of Malacca	..	..	77
<i>Ngnangnari</i> or <i>Pulo Bua</i>,	..	..	326*
Nomades in the Archipelago, of the Forests, Rivers and Sea.	..	..	9, 10
(see <i>Ethnology</i>)			
Nursing, <i>Binua</i>,	..	..	267

O

<i>Olo magalian</i> of Dyaks of Banjarmasin	..	..	31
Omens from flight of birds (Dyaks)	..	..	32
dreaded by king of Siam	..	..	340
<i>Orang Mintira</i>	..	..	326*
<i>Sabimba</i>	..	..	295
<i>Biduanda Kallang</i> in Johore	..	..	299
<i>Sletar</i>	..	..	392
<i>Muka Kuning</i>	..	..	327*
Ordeals, Siamese	..	..	505
Ornaments of the Dyaks of Banjarmasin	..	..	31
Origin of the country and race of the <i>Binua of Johore</i>.	..	..	277
Orphan Chambers in Netherland India	..	..	187
O'Shaughnessy, Dr., on coal of Malay Peninsula	..	..	155
OxLEY, T. Esq., on Gutta Percha [see CONTENTS p. iii.]	..	..	22

P

Paddy , varieties of cultivated by <i>Mintira</i>	..	..	..	331*
<i>Pakam</i> (Johore)	..	..	..	244
Pankallang Bukit, specimens of gold from	..	..	..	81
<i>Pantuns</i> , Malay	..	..	..	150, 224
Parents and children, social and legal relation of,				
Siamese	..	..	346, 379, 386	
Binua	..	..	..	266
Mintira	..	..	..	330*
<i>Parmaphora</i> (Singapore)	..	..	..	234
<i>Pawang</i> , a <i>Mintira</i>,	..	..	..	332*
Pepper, Government culture of, in Netherland India..	..	..	..	303
Physical relation of the Archipelago to the con. Asia..	..	..	..	2
characteristics of the Binua of Johore	..	..	249, 252	
<i>Mintira</i>	..	..	294-5	
<i>Sabimba</i>	..	..	295, 349*	
<i>Orang Sletar</i>	..	..	302, 345*	
Piratical communities of the Indian Archipelago	..	..	..	14
Plants of Cochin China	..	..	..	56
<i>Planorbis</i> (Singapore)	..	..	..	235
Plutonic deterioration of the coal of the Peninsula	..	..	..	165
Policy, beneficial, of Government of Netherland India	..	..	..	143
Polynesian language general, rejection of by Mr. Crawford	..	..	..	178
Polygamy, amongs the Siamese	..	..	..	346
Cochin Chinese	..	..	..	62
Population of the Indian Archipelago an extension of that of the Continent..	..	..	..	9
great eras in its history	..	..	..	10
social and personal condition of	..	..	..	15
Cochin China	..	..	..	59
Java	..	..	..	129
table of	..	..	..	75
of Madura	..	..	..	129
Batavia	..	..	129, 75	
Karrang Bollong	..	..	101-2	
Pulopetak (Banjarmassing)	..	..	..	32
<i>Poyangs</i> (Binua)	..	..	271, 276	
incantations	..	..	..	275
<i>Poyangism</i> a species of schamanism	..	..	..	280
Priests, Siamese (see <i>Siam</i> and CONTENTS p. ix.)	..	..	..
Binua	..	..	..	276
Pulopetak, population and kottas of,	..	..	..	43
Pulo Timmukul geology of,	..	..	..	99
<i>Chikukoh</i>	..	..	..	ib.
<i>Tokong</i>	..	..	..	98
<i>Bua</i> (the future world of the <i>Mintira</i>)	..	..	..	326*
<i>Tiga</i> coal	..	..	..	146
<i>Besar</i> (Malacca) iron Dykes in granite of	..	..	..	166
<i>Matang</i> (Battam) iron dykes in granite of	..	..	..	166
<i>Tingi</i> (Johore)	..	..	..	243
<i>Pamangit</i> or P. Pisang (Johore)	..	..	..	243
<i>Tioman</i> or <i>Timoan</i> (Johore)	..	..	..	243
<i>Lontar</i> (M. P.)	..	..	..	356*
<i>Panjang</i> (M. P.)	..	..	..	347*
<i>Bouton</i> (M. P.)	..	..	..	357*
<i>Lankawi</i>	..	..	..	80
<i>Buah Sag:</i>	..	..	..	98

<i>Pulo Ubi</i>	.. ..	98
<i>Piningat</i>	.. ..	71
<i>Panjang</i> geology of,	.. ..	99-100
<i>Chirmin</i> , coal of,	.. ..	78-99

R

Races. (see *Ethnology*)

Races, human, limit of identity in the development of	172
<i>Rachado</i> , Cape, geology of	.. ..	164
<i>Rafflesia Patma</i> , some contributions to the natural history of by M. Zollinger	.. ..	66
Raffles' administration of Java, strictures on	.. ..	135, 189
Raja Muda of Rhio, residence of	.. ..	71
marriage ceremonies of son of	.. ..	<i>ib.</i>
<i>Rawa</i> , <i>orang</i> , of Sumatra, their annual immigrations to the Malay Pen. growing power and oppression of the <i>Mintira</i> &c.,	.. ..	328*
Regencies (Java)	.. ..	181
Religion, of the Binua of Johore	.. ..	275
Cochin China	.. ..	115
Christian in Cochin China	.. ..	116
Christian in Neth. India.	.. ..	140
Siam (see <i>Siam</i> and CONTENTS p. ix.)	.. ..
Mintira (see <i>Mintira</i>)	.. ..
[see also <i>Superstitions, priests, Feasts</i>	.. ..
Residencies in Java	.. ..	125
population of	.. ..	79
Resident (Java)	.. ..	181
<i>Retti</i> (Sumatra) coal of	.. ..	153
Revenue of the Dutch possessions in the Archipelago	.. ..	183
Rhio, glance at, by J. T. Thomson Esq. (see CONTENTS p. iv.)	.. ..
Rice, govt. culture of in Neth. Ind.	.. ..	194
Rivers of Cochin China	.. ..	85

S

<i>Sabimba</i> , <i>orang</i> , (Singapore)	.. ..	246-295
Sacrifices from dreams' (Dyaks)	.. ..	32
human (id.)	.. ..	33
and ceremonies on gathering the Bird nests at Karrang Bollong &c.,	.. ..	102
<i>Sakai</i> , <i>orang</i> , (M. Pen.)	.. ..	246
Sandstone and clayey strata of Singapore	.. ..	86
Sawah cultivation in Java	.. ..	131
<i>Sawi</i> (incantations)	.. ..	277
Schamanism	.. ..	280, 2
schools in Neth. Ind.	.. ..	140
Shair Bidasari, a Malay Poem, text and translation	.. ..	38
Shells of Singapore (see TRAILL)	.. ..	225
catalogue of	.. ..	239
of Tama	.. ..	167
Shell fish used as food in Singapore	.. ..	230
Siam, laws of, [see CONTENTS p. iv.]	.. ..	327
agriculture in,	.. ..	335
land tax	.. ..	336
king of, his prime duties,	.. ..	337

king of, annual ploughing festival	.. ..	338
curious superstitious penance performed for the king	<i>ib.</i>	
annual circumambulation of the city by	.. ..	340
omens dreaded by	.. ..	<i>ib.</i>
marriage of, may marry sister or daughter	.. ..	350
gift by	.. ..	370
education of children of	.. ..	382
monopoly of trade by	.. ..	392
traditional origin of rice	.. ..	<i>ib.</i>
<i>paddi terbang</i> or <i>smangat</i>	.. ..	341
mode of culture and planting	.. ..	<i>ib.</i>
annual inundation of the river Me nam	.. ..	<i>ib.</i>
season of sowing and reaping	.. ..	<i>ib.</i>
modes of reaping and husking	.. ..	342
gardens, kitchen vegetables flowers	.. ..	<i>ib.</i>
women, character, position, habits, education, &c.	.. ..	375, 382
marriage, age of, ceremonies, expences &c.	.. ..	245, 9
polygamy	.. ..	346
concubinage	.. ..	346
parents and children, legal and social relations of	.. ..	346, 379, 80
adoption of sons	.. ..	249, 362, 372
teacher and pupil	.. ..	380
training and education of children	.. ..	379-82
husband and wife,	.. ..	346, 375, 277
4 classes of wives	.. ..	348
wife may be pledged by husband	.. ..	342, 372
adultery	.. ..	347
widows, social and legal rights and position of [see CONTENTS p. x.]		
Superstitions and sup. practises		
agricultural	.. ..	338
on pregnancy	.. ..	361
women dying in child bed	.. ..	361
Death, sickness ceremonies on	.. ..	363
Funeral obsequies	.. ..	350, 361, 364-8
Tombs,	.. ..	366
spirits of invoked	.. ..	367
Priests, dress and goods of	.. ..	355
number and influence of	.. ..	357
astrologers	.. ..	356
charitable institution	.. ..	358
Plays, games and other amusements at funerals	.. ..	365
marriages	.. ..	373
<i>Manes</i> of parents and ancestors	.. ..	367
names, no family names	.. ..	368
ambassadors, mode of receiving &c.,	.. ..	371
etiquette	.. ..	382
master and servant	.. ..	387
slaves [see CONTENTS p. x.]	.. ..	384
slave trade	.. ..	385
debtors	.. ..	386, 8
captives	.. ..	<i>ib.</i>
secret compacts, ceremonies and oaths	.. ..	393
ordeals	.. ..	505
charms used by thieves	.. ..	420
killing animals, invocation of their spirits by butchers	.. ..	427

[* * For other customs more strictly connected with the laws and their administration see the different titles CONTENTS p. ix.]

Silk, Government production of in Netherlands India. 204

Singapore and adjacent islands, notes on the geology of, by Col. Low			
[see CONTENTS. p iv.]	..	..	84
anthracite at	..	..	165
Slave trade in the Indian Archipelago	..	..	15
<i>Sletar, orang</i> , remarks on (see CONTENTS p. viii.)	..	..	302, 341*
<i>Smangat</i> or human being after death			
Mintira	..	..	326*
paddi	..	..	361
Snakes used as food by the Binua	..	..	257
Snare for killing wild animals used by the Binua	..	..	257
Soils of Singapore	..	..	91
Spells (<i>Mintira</i>)	..	..	308
used in attacking elephants	..	..	316
to allay storms	..	..	317
for safety in the forest	..	..	ib.
expelling spirits of disease	..	..	318
for invulnerability	..	..	319
(see <i>Mintira</i>)			
Spirits of mountains, rivers, (see <i>Hantu Mintira</i>)	..	..	277
Sugar, Govt. culture of in Neth. Ind.	..	..	134, 200
<i>Sumpitan</i> of the Binua	..	..	271
<i>Orang Sabimba</i>	..	..	318*
Superstitions			
Dyaks of Banjarmassing	..	..	31
ceremonies and sacrifices of Birds Nests gatherers at			
Karrang Bollong in Java	..	..	102
of the Binua of Johore	..	..	271, 5, 7
Mintira	..	..	277
Binua, Dyak and Batta compared	..	..	279
Malay, practices when women die in child birth	..	..	362
<p><i>pleset, langswoi</i></p>	..	..	ib.
Siamese, (see <i>Siam</i>)			
Surgery, application of gutta percha to,	...	..	26

T

Table of measurements illustrative of the physical peculiarities of the			
Mintira, Biduanda Kallang, and Sabimba	..	..	305
Exports and imports of Netherland India	..	..	206
Finances of Neth. Ind.	..	..	217
<i>Tagal</i> or <i>tipar</i> rice cultivation in Java	..	..	197
Tama, calcareous beds at,	..	..	167
coal at,	..	..	147, 153
<i>Tambusa</i> , orang at P. Tingi	..	..	243
Tampui arrack and feasts of the Mintira of Johore	..	..	260
<i>Tana Merá</i> , the future world of Mintiras who have been killed	..	..	326*
<i>Tanjong Patong</i> , coal of	..	..	354*
Tattooing of the Dyaks of Banjarmassing	..	..	30
Taxes in Cochin China	..	..	59
Tea, govt. culture of in Neth. Ind.	..	..	ib.
Teak, forests of in Java	..	..	205
TEMMINCK, M. general view of the Dutch possessions in the Indian			
Archipelago [See CONTENTS p. v.]	..	..	127, 194
Temperature of Karrang Bollong	..	..	101
Tenure of land in Java	..	..	133
in Cochin China	..	..	133
<i>Ternate</i> , earthquakes and eruptions at	..	..	168
Theft, (see <i>crimes and punishments</i> .)			

THOMSON, J. T. Esq, Glance at Rhio by [see CONTENTS p. iv.]	..	..	68
Timor, falling in of a mountain,	..	..	168
Tin mines of Malacca	..	..	77
Tobacco, govt. culture of in Neth. Ind.	..	..	203
use of by the Binua and Mintira	..	..	355
Tongking colonised by Chinese	..	..	112
Tombs, reverence for amongst Siamese	..	..	366, 7
Towns of Cochin china	..	..	58
Trade of Netherland India	..	..	206
Tables of exports and imports for 1856 to 1844	..	..	207
Trading company of Netherland India	..	..	121
Traditions of the <i>Binua</i>	..	..	275
<i>Mintira</i>	..	..	326
TRAILL, Dr., Conchology and Malacology of Singapore and its neighbourhood [see CONTENTS p. vi.]	..	..	225
Tribes of Ind. Arch. diversity of	..	..	12
<i>Tuju</i> , spell <i>Mintira</i>	..	..	308

U

<i>Udai</i> , orang (M. Pen.)	..	..	246
dress of females	..	..	253
(see <i>Bermun tribes</i> .)			

V

Vacinator-, native, in Neth. Ind.	..	..	143
Vegetation of the Indian Archipelago, its luxuriance, influence on character of the islands, mountains &c.,	..	..	5, 9
Cochin China	..	..	56
Vegetables, cultivated by the Binua and Bermun tribes (M. Pen.)	..	..	255
wild leaves used as	..	..	255
Vocabularies of languages of Ind. Arch. necessity of compiling	..	..	182
Vine, cultivated in Cochin China	..	..	64
Volcanic eruptions, in the Indian Archipelago	..	..	6
Ternate	..	..	168

W

Weapons of the <i>Mintira</i>	..	..	330
Wills, Siamese	..	..	359
Wishing places of the <i>Mintira</i>	..	..	318
Wives (see <i>husband and wife</i>)	..	..	..
Women of Cochin China, condition of	..	..	63
Binua,	..	..	264

Z

ZOLLINGER, M. on <i>Rafflesia Patma</i>	..	..	66
ZOOLOGY. (see <i>Animals</i>)	..	..	..
(For names of animals, see INDEX II. throughout.)			

II. INDEX OF NAMES AND GLOSSARY.

A

Adelan	327	Bakat (name, Mintira) ..	324*
Adhipati (off.* Java) ..	131, 190	Bakan (bill, Mal. Pen.) ..	300
Aisa (name, † Sabimba) ..	349*	Balaksini (plant) ..	277
Ajas (plant)	296	Balei, an open hall ..	260
Akar, root	272	Balok (fruit)	296
Ak p, hra Satsadee (off. Siam) <i>ib.</i>		Baner	260
lo-ung Múung .. <i>ib.</i> ..	401	Bangas (name, Sabimba) ..	249
lo-ang p, heng .. <i>ib.</i> ..	<i>ib.</i>	Bangkong (riv. Mal. Pen.) ..	248
lo-ang clang .. <i>ib.</i> ..	<i>ib.</i>	Do. (plant, Mintira) ..	331
p, hra palat .. <i>ib.</i> ..	400	Banjoemaas (res. Java) ..	75
p, hra yokkabaat .. <i>ib.</i> ..	<i>ib.</i>	Banjumas (Java)	349
p, hra pun .. <i>ib.</i> ..	<i>ib.</i>	Banke (plant)	259
p, hra mahai t, hai .. <i>ib.</i> ..	<i>ib.</i>	Bantam (res. Java)	75
Alas-alas (bird, Java) ..	108	Barok	272
Aloat nyáwong	33	Baro (plant, Johore) ..	300
Allum (name, orang Besisi) ..	325	Bata Bidohom	326*
Alung	253	Batang, stem	272
Amdan Nagara	89	Muar (place, Johore) ..	31, 283
Ampadil	331	Batavia (res. Java)	75
Amrita	362	Batin Batara (off. Binua of Jo.) ..	243
Anak Iodáu (river, Johore) ..	243	Chinchang .. <i>ib.</i> ..	275
Anáu (plant)	255	Changei Bisi .. <i>ib.</i> ..	32
Angin (name, Sabimba) ..	349*	Hamba .. <i>ib.</i> ..	243
An Giang	52	Raja .. <i>ib.</i> ..	273
Anoo b, heeriya	352	Jedam .. <i>ib.</i> ..	327
Anprio	<i>ib.</i>	Jokra .. <i>ib.</i> ..	278
Antang uláng	32	Kichi .. <i>ib.</i> ..	275
Antas	<i>ib.</i>	Krat Tiga .. <i>ib.</i> ..	327
Arrack támpue	260	Onastia .. <i>ib.</i> ..	273
Assan (name, Mintira) ..	324*	Palimei .. <i>ib.</i> ..	275
Attap (leaf)	253	Puchu .. <i>ib.</i> ..	<i>ib.</i>
Att, hiya (off. Siam) ..	395	Singa Dewa .. <i>ib.</i> ..	273
Ava	330	Stia Raja .. <i>ib.</i> ..	<i>ib.</i>
Awa (name, Muka kuning) ..	339*	Batu Pahat or Rio Formosa (riv. Johore) ..	243, 246-7, 263, 274
Awin (name, Sletar) ..	346*	Bakachong (stone in Joh.) ..	278
Ayer chirmin (riv. Mal. Pen.) ..	248	Berlayar (pt. Singapore) ..	99
Ayer Itám .. <i>ib.</i> ..	<i>ib.</i>	Tre	319
Ayer Mángis .. <i>ib.</i> ..	<i>ib.</i>	Bayai (riv. Mal. Pen.) ..	748
Ayin (name, Mintira) ..	<i>ib.</i>	Bayan (plant)	252
		Bayas .. <i>ib.</i> ..	296
		Bechuak (mount, Johore) ..	278
		Bejaneegar	89
		Bekel (off. Java)	130
		Berkot (kamp., § Mintira) ..	324
		Berebere	307
		Bersisi	248
		Berumpum (riv. Johore) ..	<i>ib.</i>
		Bezokie (res. Java)	75
		Bidara (plant)	259
		Biduanda Kallang	246

* Off. for officer of Government.
† Res. for Residency.

† Name for name of person.
§ Kamp. for kampung.

Bilabong (riv. Johore) ..	248	Coa bang (riv. Anam) ..	51
Bina (kamp., Mintira) ..	324	Cape St. James ..	119
Bina (name o. Muka Kuning) ..	339	Cape Rachado ..	164
Bindahara (off. Johore) ..	273	Chaap m. ..	ib.
Binh den (riv. Anam) ..	51	Chaba (plant) ..	343
Thuan ib. ..	ib.	Chacheng ib. ..	255
Bintang (Is. Johore)..	68	Chagak (name, Mintira) ..	324
Hill, large, ..	74	Chak (name, Besisi) ..	325
(name, Sabimba) ..	349*	Chaklaa ..	397
Bintara of Boko (off. Binua of Johore) ..	249	Chaminoi (plant) ..	259
Bintara ..	274	Chamop ..	397
Binnong (plant, Mintira) ..	331	Chandan ..	261
Binua (tribes, Johore, see Index I.) ..	283	Chandu, a preparation of Opium for smoking ..	273
Binundang ..	327	Chan Toan ..	335
Binut (riv. Johore) ..	247, 261, 274	Chan Naa ..	337
Blakang Mati, (Is. Singapore) ..	98	Charak, he ..	399
Blanah Bay (Bintang) ..	73	Chau Muung, (off. Siam) ..	398
Blanga a pot ..	266	P, hree Yommaraat ..	398
Blanga, (of the Dyak) ..	31	P, hria P, het phée chai. ib.	ib.
Blatong (plant) ..	259	Cheche ..	ib.
Bliaus ..	51, 283	Cheeng chawk ..	394
Blukar (plant) ..	259	Chen'en ..	ib.
Bluru ib. ..	ib.	Cheribon (riv. Java) ..	75-363
Bo binh (off. Anam) ..	111	Cheeng chawk ..	394
Bobol (name, orang Besisi) ..	325*	Chiante, (name, Besisi) ..	325
Bo long ib. ..	ib.	Chichar m. ..	ib.
Bodo ib. ..	bi.	Chimas ..	ib.
Bo binh (off. Anam) ..	ib.	Chimah ..	319
Bo ho ib. ..	110	Chinankas, (weapon) ..	330
Bokobaka (plant) ..	259	Chinarong ..	255
Bo lai (off. Anam) ..	110	Chinchang (riv. Mal. Pen.) ..	248
Bo le ib. ..	111	Chinkwi (plant) ..	319
Bombong (plant, Mintira) ..	331*	Chimundang (mt. Mal. Pen.) ..	278
Bontong (name, orang Besisi) ..	225	Chirian (name, Mintira) ..	324*
Boon teh, (name, Sietar) ..	346*	Chittong, (plant, Mintira) ..	331
Borneo ..	78	Chua ..	49
Bosojulot (name, Mintira) ..	324*	Chua Ngu yen ..	ib.
Bot P, hra Ayakaan ..	332	Chumpa ..	319
Buitenborg (res. Java) ..	75	Ciampa ..	50
Bukit Linger (hill, M. Pen.) ..	248	Colompe (town, Camboja)..	52
Julotong (Prov. Well.) ..	94	Confucius ..	116
Bukit (name, Sabimba) ..	349*	Congio ..	ib.
B. Kichi (kamp., Mintira) ..	324*	Cua Ap Hoc (harbour, Anam) ..	57
Bulu kasap (plant) ..	258	Ba Thac ..	ib.
Bunga (name, Mintira) ..	324*	Bang ..	ib.
Bunga (kamp., Mintira) ..	325*	Bang lou ..	ib.
Bungsu (name, o. Besisi) ..	ib.	Bien ..	ib.
Bunkas ib. ..	324*	Bich ..	ib.
Buntamatti, Java. ..	366	Bo De ..	ib.
Bura (kind of Paddy). ..	331*	Cam ranh ..	ib.
Butun (name, Sabimba) ..	349*	Can Vot or Compong ..	ib.
		Cay Quao ..	ib.
		Cha Vang ..	ib.
		Cu' Chien ..	ib.
		Da Rau ..	ib.
		Dai ..	ib.
		Dai Buch ..	ib.
		Dai Quang Ngai ..	ib.

C

Camboja ..	58
Cannanore ..	94

Cua Dong Hoi (harbour, Anam)	57
Qong Tranh	.. .. <i>ib.</i>
Ganh Han	.. .. 58
Gia	.. .. <i>ib.</i>
Gianh	.. .. 57
Han hon	.. .. <i>ib.</i>
Ho	.. .. <i>ib.</i>
Hon Khoe	.. .. <i>ib.</i>
Houne	.. .. <i>ib.</i>
Lac	.. .. <i>ib.</i>
Lan	.. .. <i>ib.</i>
Lon	.. .. 58
Mai Nha	.. .. <i>ib.</i>
Mi Thanh	.. .. <i>ib.</i>
Moi	.. .. <i>ib.</i>
Ong Doc	.. .. <i>ib.</i>
Rach Gia	.. .. <i>ib.</i>
Thai	.. .. 57
The Van	.. .. <i>ib.</i>
Thi phu	.. .. <i>ib.</i>
Tien	.. .. <i>ib.</i>
Thuan	.. .. 57
Thuoc	.. .. <i>ib.</i>
Tong	.. .. <i>ib.</i>
Trien	.. .. <i>ib.</i>
Tro	.. .. <i>ib.</i>
Tu Dong	.. .. 58
Uc,	.. .. 57
Vam Ray	.. .. 58
Viet	.. .. 57
Xien	.. .. <i>ib.</i>

D

Daon ru-ung (boonga tei a-yam) <i>ib.</i>
Dai nam (official name of Anam)	.. .. 49
Dagon (plant)	.. .. 255
Dak ban mai ro roe (plant, Siam)	.. .. 343
Dak kalong (plant, Siam)	.. .. <i>ib.</i>
boon naak	.. .. <i>ib.</i>
hongseephaat	.. .. <i>ib.</i>
kadanga cheen	.. .. <i>ib.</i>
keo	.. .. <i>ib.</i>
k,hem	.. .. <i>ib.</i>
nom meo	.. .. <i>ib.</i>
rak	.. .. <i>ib.</i>
sarap,hee	.. .. <i>ib.</i>
sau yoot	.. .. <i>ib.</i>
t,hiyan	.. .. <i>ib.</i>
yeet ho	.. .. <i>ib.</i>
Damak	.. .. 272
Dana Radja	.. .. 364
Dambong	.. .. 255
Danlek (kamp. Johore)	.. .. <i>ib.</i>
Dau	.. .. 324

Dápoi	.. .. 324
Darat Yassin (place, Malacca)	248
Dato	.. .. 283
Dayong (name, Mintira)	.. 324*
Desa	.. .. 119
Desan (name, Sletar)	.. 346
Demam name, Mintira)	.. <i>ib.</i>
Dewata	.. .. 282
Dhemang (off. Java)	.. 130
Dhipo Negoro	.. .. 222
Didalin (plant, Mintira)	.. 331*
Diebata	.. .. 282
Djaksa (off. Java)	.. .. 137
Dinh Tuong	.. .. 52
Districts raad (Court, Java)	137
Djata	.. .. 33
Djoecocarta (riv. Java)	.. 75
Doa pendinding	.. .. 309
pengaseh	.. .. 310
pimanis	.. .. 311
panundo	.. .. <i>ib.</i>
chucha	.. .. 312
pemata lida	.. .. 314
pebinchi	.. .. 315
Dong Tranh	.. .. 58
Dong Hoi	.. .. <i>ib.</i>
Dosan (name Sletar)	.. 346
Dras (name, Muka kuning)	339
Duka (plant)	.. .. 259
Dumpa <i>ib.</i>	.. .. 259
Durian <i>ib.</i>	.. .. 296
Durian gantang (kamp., Mintira)	.. .. 325
Duson	.. .. <i>ib.</i>
Dyang (name Mintira)	.. 349

F

Fai Fo 58
Fo	.. .. 116
Formosa	.. .. 78

G

Gabang (kamp., Mintira)	.. 324*
Gading	.. .. 248
Gadong	.. .. 272
Gadong (name, Besisi)	.. 355*
Gagan (kamp., Johore)	.. 273
Galla (name, Mintira)	.. 324*
Gallat (riv. Mal. Pen.)	.. <i>ib.</i>
Galú (Java)	.. .. 364
Ganesa	.. .. 339
Ganesha	.. .. 282
Gapong (plant)	.. .. 255
Gappam (Mal. Pen.)	.. 248
Garing	.. .. 254
Garop, (tree)	.. .. 259

Hantu Kamang	..	..	307
Katumbohan..	..	<i>ib.</i>	
Kambong	..	..	<i>ib.</i>
Pari	..	..	308
Pnyakit Punan	..	..	307
Penyadin	..	..	<i>ib.</i>
Saburo	..	..	<i>ib.</i>
Sular	..	..	308
Swen	..	..	<i>ib.</i>
Tingi	..	..	<i>ib.</i>
Hatalla	..	..	33-281
Hera	..	..	415
Hien Vuong	..	..	50
Hoi An	..	..	58-59
Hue, town	..	..	58
Hukum	..	..	259
Hung hoa (riv. Anam)	..	..	51
Huyen	..	..	59

Ibol (name, Muka kuning) ..	339*
Ikan (name, Mintira) ..	334*
Ilang ib. ..	ib.
Iloi, (name, orang Besisi) ..	ib.
Impang (name, Sletar) ..	346*
Indau (riv. Johore) ..	243*
Indramaya (Java) ..	361*
Ingas ..	ib.
Ipong (snake) ..	257*
Ipoh (root) ..	272*
Iras (name Muka Kuning) ..	339*

Jakun (tribe Johore) ..	247, 277
Jalan (name, Muka kuning) ..	"
Jalce (name, Mintira) ..	349
Jangkang ib. ..	324
Jangkang (plant ib.) ..	ib.
Jangka (kamp. Mintira) ..	325*
Janpan (name, Besisi) ..	324
Japara (res. Java) ..	75
Jarui (name, Besisi) ..	ib.
Jayak (name, Muka Kuning)	399*
Jewa-Jewa ..	255-275
Jijan (riv. Mal. Pen.) ..	248
Jijalah (kamp. Mintira) ..	325
Jilibu (riv. Mal. Pen.) ..	248
Jilla (plant) ..	259
Jimardes ..	272
Jimpul (riv. M. Pen.) ..	248
Jilutong (kamp. Mintira) ..	325*
Jinnang ..	275
Jin Bumi ..	255, 275
Jin ..	ib.
Jinam, (riv. Mal. Pen.) ..	248
Jiring (plant) ..	569

Jodo (name, Muka Kuning) .	339
Johole (place Johore) .	275
Johore ..	246
Jorokra ..	275
Joui (name, Besisi) ..	325*
Jubata ..	283
Jukra ..	275
Jukra (place, Mintira) ..	324
Jukut (name, Besisi,) ..	ib.
Jungeh (name, Mintira,) ..	534

K

Khables (fruit) ..	290
Kabuten ..	131
Kachang bungak (bean)	255
Do. (plant) ..	259
Kacho (name, Mintira) ..	324
Kadanga (plant) ..	343
Kadoe (res. Java) ..	75
Kadu (Java) ..	363
Kadundong (plant) ..	259
Kadumpa (fruit) ..	296
Kadumpal (plant, Mintira) ..	330
Kahang (riv Johore) ..	249
Kaladang (fruit) ..	296
Kallong (Mal. Pen.) ..	548
Kamalan (plant, Mintira) ..	331
Kamui ib. ..	ib.
Kamen ib. ..	ib.
Kamong (snake) ..	257
Kamong (fruit) ..	259
Kamaso (plant, Johore) ..	298
Kamu ..	255
Kandun (plant, Mintira) ..	330
Kanseel (plant) ..	259
Kapayang (leaves) ..	255
Kapaya ib. ..	ib.
Kapayang (Mal. Pen.) ..	248
Kapas ib. ..	255
Kapi (riv. Johore) ..	244
Kapok (plant, Java) ..	204
Karamut ..	266
Karanting (mus. inst.) ..	330
Karrang Bollong (Java) ..	101
Kassap (name, Sletar) ..	346
Kassar (name, Mintira) ..	349
Kassah (name, Muka Kuning) ..	339
Kassaw ib. ..	ib.
Katapa ..	296
Katang (name, Besisi) ..	325
Kate (name, Muka Kuning) ..	339
Katien (plant) ..	259
Kwalli aniron pan ..	261
Kawe (plant) ..	259
Kayu Gharu ib. ..	ib.
Glam ib. ..	354
Kipialu angin ib. ..	300
Tutu ib. ..	272

Kecho or Bai ,than (town	
Anam) ..	41
Ke cho ..	58
Kedirie (res. Java) ..	75
Kelut (name, Muka Kuning)	239
Kemoi (tribe, Anam) ..	53
Kewe (name, Besisi) ..	325
K,hat,ha ..	411
Khon hoa (riv. Anam) ..	41
K,hoon see (off. Siam) ..	395
K,him Ayachack ib. ...	399
Katcha rectharian ib.	ib.
Phetchana t,hep ib.	400
Raat P,hanit chai ib.	ib.
or Recorder ib.	ib.
or Recorder ib.	ib.
See rachabit ib.	ib.
sarkan ib.	ib.
Soang p,hra kroi see ib.	399
T,hepphaya ib.	ib.
Kichipo (plant) ..	259
Kiche (name, Besisi) ..	325
Kiddang Passang (place, Min-	
tira) ..	331
Kljang (deer) ..	257
Kika (plant) ..	259
Kikai ib. ..	ib.
Kima (kamp. Mintira) ..	325
Kim bong ..	58
Kimoh (plant Mintira) ..	331
Kimok ib. ..	ib.
Kinjong ib. ..	ib.
Kinh bac (riv. Anam) ..	51
Kimtot (name, Besisi) ..	325
Kipping (plant) ..	253
Kirabu ib. ..	259
Kirdas ib. ..	ib.
Kirpol ib. ..	ib.
Kissah (name, Sletar) ..	346
Kissang ..	81
Klassa (Mal. Pen.) ..	248, 255
Klawang ib. ..	ib.
Kledang (plant, Mintira) ..	330
Kledi ib. ..	256
Klesses ib. ..	330
Klosoi (name, Besisi) ..	325
Klueng (plant) ..	259
Kluna ib. ..	225
Koai (plant, Mintira) ..	331
Kochin (name, Mintira) ..	324
Kol (name, Besisi) ..	325
Kolot ib. ..	ib.
Koon ..	344
Korup ..	345
Koson (name, Sletar) ..	346
Kota Tingi (Johore) ..	242
Kotta ..	34
Kot p,hra A yakaan (digest of	
Siamese Law) ..	332

Kra (Monkey)	259
Krawang (res. Java)	75
Kulem (plant)	259
Kulit Sawa (name, Besisi) ..	325
Kulon	ib.
Kumpol (plant, Mintira) ..	330
Kundui	284
Kunungan (Java)	263
Kunong (name, Besisi)	325
Kung (leaves)	255
Kuun (Mal. Pen.)	248

L

Labo (place Mintira)	ib.
Labu (riv. Mal. Pen.)	248
Labuan	78
Ladang (leaves)	225
Lak, hau	ib.
Lakup (fruit)	ib.
Lale urat	296
Lalan (plant Mintira)	331
Lamar (riv. Mal. Pen.)	248
Lampeï (plant Mintira)	331
Lana (riv. Mal. Pen.)	248
Langat	248
Langkap (fruit)	273
Lang bac (riv. Anam)	51
Land road (Court Java) ..	137
Lang soowee	362
Lanjut klissa (plant Min.) ..	331
Langkap	248
Langkap (leaves)	255
Lankawi, (is. Mal. Pen.) ..	353
Larabaung (kam. Min.)	324
Lara, (plant Mintira)	330
Lawet (swallow)	107
Legok Njenang, (Java)	363
Leka (orang Muka Kuning) ..	339
Lerang (plant Mintira)	330
Libbam, (riv. Johore)	246
Ligoh (name Mintira)	324
Limama (riv. Mal. Pen.)	248
Limama (kamp. Mintira) ..	324
Limau	324
Lima (name M. Kuning)	339
Limbing (weapon)	330
Limong (name Besisi)	325
Limpat (name, M. Kuning) ..	339
Linak, (name, Besisi)	325
Linggo (riv. Johore)	273
Lingi (riv. Mal. Pen.)	248
Lingin (riv. Johore)	246-278
Lintang (plant)	255
Lipu	255
Lo-ang Taana p, hak kaat ..	399
Theppa, ha Rachada	399
T,hammasaat	ib.

Lo-ang Rachada Thada	399
Atthaya	399
Shammassaat	396
Yaa Prakaat	399
Lodang (name, Mintira)	349
Lonah (plant, Mintira)	331
Lukut (riv. Mal. Pen.)	248
Lo-ung racha t, hada (off Siam)	395
Low's Island (Mal. Pen.) ..	358
Luc bo (off. Anam)	106
Luen (plant, Mintira)	331
Luint, (name, Mintira)	349
Lulumut, (mount Mal. Pen.) ..	247
Lunkokoyo (plant)	269

M

Mabayo	324
Mabaukkeng	324
Machang	259
Made (riv. Johore)	243
Madioen (res. Java)	75
Madja Lengka (Java)	364
Madura, (res. Java)	75
Magoyang (name, Mintira) ..	324
Majah (name, Muka Kuning) ..	339
Majapahit	192
Makan sulong tahun	329
Maklang (name, Mintira) ..	324
Malabar	95
Mallai, (plant)	259
Mallye	272
Malim, (place, Mintira)	„
Maman (leaves)	255
Manoa, (snake)	257
Mamling, (plant)	296
Mangis	344
Mangis	259
Mangkapas, (plant, Mintira)	336
Mangosutan, (fruit)	216
Mau Pachom	334
Manki pimanggun	274
Mangkan	415
Marki (plant)	259
Marumput, (name, Mintira) ..	324
Masci (name, Sietar)	346
Mataram	192
Mayong (plant)	259
Mela tam nyan	349
Meenah (name, Mintira)	349
Mekon	53
Melem	324
Me num	341
Me p, ha sop	340
Milldeng, (kamp., Mintira) ..	344
Mina (name, M. Kuning)	339
Mupai (name, Mintira)	324

Mindaleng (plant) ..	259
Ming Mang ..	50
Minh Vuong ..	ib.
Mino (name, Mintira) ..	324
Mintira (tribe, Johore) ..	248
Mirian api ..	277
batu ..	ib.
igi ..	ib.
padi ..	ib.
Mirlilin (plant) ..	259
Mirpadi ib. ..	ib.
Montra ..	411
Montree ..	351
Moon ..	284
Mot (name, Besisi) ..	325*
Mothe Lambert (Rev. M. de la)	117
Moyang Birtang (moon-wo-	
men) ..	284
Mret (kind of paddy) ..	331*
Muar (riv. Johore) ..	247
Muar (place, Johore) ..	275
Mulut (name, Sabimba) ..	349*
Mundo (name, Besisi) ..	325*
Mungee (name, Sabimba) ..	349*

N

Nabongkok (name, Besisi) ..	325*
Nachin (kind of paddy) ..	331*
Naga (snake) ..	257
Nahacha (div. Mal Pen.) ..	248
Nak, hasena ..	355
Nam ha (div. Anam) ..	51
Nam Thuong ib. ..	51
Nam Vang ..	52
Nanas (kamp. Mintira) ..	325*
Naning (Mal. Pen.) ..	247
Napon (name, Mintira) ..	324*
Narimah (ib. Sabimba) ..	349*
Narok ..	415
Nassap, (name, Sletar) ..	346*
Neekan g, ib. ..	ib.
Ngai Young ..	50
Nen, (priest Siam) ..	354
Ngngnari or Pulo Buah ..	326*
Ngé an (div. Anam) ..	51
Ngeeoobhen ..	365
Nhia Trang ..	51
Nibong (plant) ..	255-296
Nibor m. (name, M. Kuning) ..	339*
Nimbenok (mount. Timor) ..	168
Noh P, hreea Raja hong ..	339
Nodo (name, Besisi) ..	325*
Noin (plant) ..	255
Nongei (name, Sletar) ..	346*
Nosan ib. ..	ib.
Nuka (name, Besisi) ..	325*

Nyai Ratu Kidul ..	52
--------------------	----

O

Olo maga lian ..	31
Oko (name, M. Kuning) ..	339*
Op (kamp. Mintira) ..	325*
Orang Bekaka (tribe, Johore) ..	336*
Bulo ..	ib.
Gilam ..	ib.
Kilong ..	ib.
Kopet ..	ib.
Laut ..	246-336*
Linga ..	ib.
Mnau ..	ib.
Mantang ..	ib.
Muro ..	ib.
M. Kuning ..	337*
Pago ..	247
P. Boya ..	336*
Rawa ..	328*
Sabimba ..	246-295
Silat ..	336*
Sletar ..	302
Sugi ..	336*
Tambus ..	ib.
Tambusa ..	246
Treng Bumban ib. ..	336*

P

Pachee P, hee deep ..	362
Pachet ..	272
Padan (name, Mintira) ..	324*
Pa daun ib. ..	ib.
Paddi terbang ..	341*
Padjeg ..	132
Pahang, wild tribes of, ..	247, 275
Pahet (plant) ..	259
Pakala (fruit) ..	296
Pakam (kamp. Johore) ..	244
Pakop (plant) ..	259
Paku (kamp. Mintira) ..	324*
Palas (plant) ..	259
Pallas ib. ..	248
Palimanang (Java) ..	345
Palokot (name, Mintira) ..	324*
Pallu (Rev. M. de la) ..	117
Palangavi (riv. Johore) ..	247*
Palsai (name, Mintira) ..	324
Pamankiran (Java) ..	364
Pau (riv. Johore) ..	244
Pancho (fruit) ..	296
Pachong ..	325*
Pandas (riv. Johore) ..	342*
Pang (name, Mintira) ..	349*
Pangel (name, Muka Kuning) ..	339*

Panghulu (priest, Java) ..	137	Pilampi (kamp. Johore) ..	259
Batu Pahat ..	274	Pinang (riv. Mal. Pen.) ..	248
Pangeran ..	131	Pines (name, Mintira) ..	324*
Panglima (off. Binau Johore)	250	Pingans plates ..	261
Panglimas ..	275	Piningat (is. Rhio) ..	68
Prang ..	72	Piniakit Punan ..	307
Pangoh (name, Besisi) ..	325*	Pinjeng (plant) ..	259
Panjang (kamp. Mintira) ..	ib.	Pirman ..	275
Pankallang Padang (kamp. Jo-		Pittai (plant) ..	259
hore) ..	244	Pittai (kamp, Mintira) ..	325*
Bukit ..	81	Platap (name, Mintira) ..	324*
Tinkala ib. ..	244	Plesset ..	330*
Pannatoes (off. Johore) ..	131	Poar ..	277
Pan Shoal ..	68	Pohon Durian (kamp. Johore)	257
Papijih (leaves) ..	255	Polong ..	330*
Para Brahma ..	282	Poliar ..	282
Param ..	ib.	Pontiana ..	330
Par amatma ..	ib.	Pontian ..	264
Parang (hatchet) ..	261	Porang (off. Siam) ..	398
Pa Singan (name, Mintira) ..	324*	Postillous Shoal ..	73
Paraveran ..	282	Powoh (name, Mintira) ..	324*
Passal (fruit) ..	296	Poyang ..	275
Passoeroean (Java) ..	75	Poyangism ..	280
Pawang ..	283	Pram (name, Besisi) ..	325*
Paya Sandar (kamp. Johore)	253	Prah (plant, Mintira) ..	330*
Payong (place, Mintira) ..	331*	Prcang Regentschapp (res. Ja-	
Pearls hill, Singapore ..	165	va) ..	75
Peero (name, Mintira) ..	324*	Preanger Regencies (Java) ..	363*
Pekalongan (res. Java) ..	75	Pring (name, Mintira) ..	ib.
Penangalan ..	330*	Pulo Besar (Malacca) ..	166, 326*
Penis (name, Sletar) ..	346*	Boah Saga (Singapore) ..	98
Persona (Java) ..	366	Bouton (Joh. Mal. Pen.) ..	357
Pettingi ..	130, 190	Chikokoh (Singapore) ..	97
P,hat ..	116	Chirmin ib. ..	78
P,hee paup (spirit, Siam) ..	361	Hantu ib. ..	ib.
P,heck hoon ..	343	Kang Arang (Borneo) ..	90
P,heck (priest, Siam) ..	354	Loban (Johore Arch.) ..	337
P,hee phrai (spirit, Siam) ..	361	Lontar (is. Mal. Pen.) ..	356*
P,hra Tamra (Siamese code)	331	Mallang (is. Joh. Arch.) ..	167
Tammon ib. ..	ib.	Mutiara ..	146, 353*
Ranasee ..	394	Panjang (is. Mal. Pen.) ..	357*
Phoot,ha-ong (off. Siam)	399	Pamangil (is. China Sea) ..	243
Satsadce ib. ..	ib.	Piningat (is. Rhio) ..	68
Sadet ib. ..	ib.	Tingi (is. China Sea) ..	243
K,hro P,hee raam ib. ..	ib.	Tioman ..	ib.
Laksa Montheeyan ib. ..	400	Tokong (Singapore) ..	98
K,hro wecchet ib. ..	ib.	Timmukul ib. ..	97
p,hee raam ib. ..	ib.	Ubi ..	51, 28
Mahosot ib. ..	ib.	Pulut itam (kind of paddy) ..	331*
P,hom Chau,thee (spirit		puti ib. ..	ib.
Siam) ..	401	Pumu (plant) ..	255
P,hoot hee rop. ..	414	Passang (place, Mintira) ..	331
P,hreca Maha Rachakro	400		
Yom ..	415		
Phu yen (div. Anam) ..	53		
Phu ..	59		
Phdh mo or Pidehmo ..	66		
Pigneaux ..	51, 98		
Pijam (riv. Mal. Pen.) ..	248		

Q

Quang B inh, (div. Anam) ..	51
Quang Nam, ib. ..	ib.
Quang Ngai, ib. ..	ib.

Quang Tri, (div. Anam) .. 51

R

Robana, (mus. inst) ..	330*
Rabo, (name, M. Kuning) ..	339*
Radja Galu, (Java) ..	346
Raja Kechi (of Johore) ..	244
Raja Binua, ib. ..	259
Raja Seeng, ha ..	349
Raja Suran ..	89
Raja, (name, orang Besisi) ..	324*
Rama (name, Sabimba) ..	349
Rambau, (Mal. Pen.) ..	247
Rambau, ..	329*
Rambei, (plant) ..	259
Ramampas ib. ..	259
Rambutan ib. ..	259
Rambutan Gading ib. ..	259
Utan do. ..	259
Kasumba do ..	259
Rambustan (plant, Mintira) ..	330*
Rameng (plant) ..	259
Rami (riv. Johore) ..	248
Ramnian (plant Mintira) ..	330*
Rampinoi (plant) ..	259
Ramun ib. ..	259
Ranjas ib. ..	296
Ranyak (name, Mintira) ..	324*
Rawang (place, Mintira) ..	331*
Rawang Besar ib. ..	331
Redan (plant, Mintira) ..	331
Regents raad (Court, Java) ..	137
Regt bank van Ommegang (Court, Java) ..	137
Rembang (res. Java) ..	75
Rhio ..	68
Ribu ..	331*
Ridan, (plant) ..	259
Ridan, (fruit) ..	296
Riddang ..	318
Rien (name, Besisi) ..	323*
Rina (name, M. Kuning) ..	339*
Rinnah, (name, Mintira) ..	349*
Ringkup (snake) ..	257
Ringit (name, Mintira) ..	324*
Rini ib. ..	349*
Rio Formosa (riv. Johore) ..	245-246
Ru (name, Mintira) ..	324*
Rugang ib. ..	324*
Ruiz (Father Bartholomew) ..	117
Rumiang (plant, Mintira) ..	331*
Rumpet (name, Besisi) ..	325*
Rumpong (name, Mintira) ..	324*
Runut ..	272
Rumut (plant) ..	255
Rusa, deer ..	257
Ryat Laut (tribe, Johore) ..	246

S

Sabangas (riv. Mal. Pen.) ..	248
Sabre (kamp. Mintira) ..	325*
Sa (name, Mintira) ..	324*
Sabulu (riv. Mal. Pen) ..	248
Sadang, (name, Sletar) ..	346
Sa Huonh ..	58
Sai Gon. ..	50
Sai Vuong ..	52
Sakai (riv. Mal. Pen) ..	248
Sakit bará sisip ..	307
bara terkilir ..	ib.
mati dituju orang ..	ib.
punan ..	ib.
Salat, Tambrau (Old Straits of Singapore) ..	242
Salch (name, Besisi) ..	325
Salo (plant) ..	259
Salong (mus. inst) ..	330
Samarang (res. Java) ..	75-391
Sambilai (name, Besisi) ..	325*
Sambilu rotan ..	298
Sambor ..	320
Samo Maradok ..	344
Sang Kang (name, Sletar) ..	346*
Kan (off. Siam) ..	395
Siangiang ..	33
San Loang (Court, Siam) ..	399
Santee (riv. Johore) ..	342*
Sant, hep harak ..	366
Sare (name, M. Kuning) ..	339*
Saring (plant, Mintira) ..	331*
Sauu (plant) ..	259
Sawa (snake) ..	257
rindam ib. ..	ib.
Sawaneng (name, Mintira) ..	324
Sawah ..	133
Sayong (riv. Johore) ..	245
Scott's Hill, (Singapore) ..	85
Segamet (riv. Johore) ..	247
Sema ..	366
Sena ..	351
Badee ..	344
Seneng (riv. Mal. Pen.) ..	248
Seneng (kamp. Mintira) ..	325
Serong (name Sabimba) ..	349
Shoman ..	283
Sia (name Mintira) ..	324*
Siam ..	113
Siba ib. ..	324
Si Basso ..	283
Sidili Besar (riv. Johore) ..	243, 245
Sija (name, Besisi) ..	325*
Sijo (name, M. Kuning) ..	339*
Sika (name Mintira) ..	324*
Sikrang (plant, Mintira) ..	331*
Sila Sila ..	327

Chept, hanz	365
Tidong (Mal. Pen.)	248
Tidong (snake)	257
Tien Vuong	296
Tjandjar (Java)	361
Tikaet (plant)	259
Tike (riv. Mal. Pen.)	248
Tilok (kamp. Mintira)	325*
Timambun (plant)	259
Timiang (kamp. Mintira)	324*
Tingal (name, Mintira)	<i>ib.</i>
Timponch (kamp. Mintira)	325*
Tirap <i>ib.</i>	
Tiwa	31
Tjatjah	133
Tjermac (mount. Java)	365, 366
Toemenggoeng	131
To Jinnang (off. Malays Joh.)	274
To Kussai (name, Besis)	325*
Tore (fruit)	296
Touron (town, Anam)	51, 58-9
Tragel (plant)	255
Trai P, hom or Tri Loca	333
Tran	52
Trang (prov. Siam)	145
Triang (riv. Mal. Pen.)	248
Trip <i>ib.</i>	
Trout	388
Trus (riv. Mal. Pen.)	248
Tuak	31
Tuanku Putri (Johore)	71
Tuang (riv. Mal. Pen.)	248
Tuba, (plant)	272
Tueyen Quang (div. Anam)	51
Tue Duc (riv. Anam)	53
Tuju	308
Tukil (plant)	255
Tungol (kind of paddy)	331*

U

Ubat mirian	277
Udai (riv. Johore)	247
Uduan kesongo	102
Ujol (tree)	<i>ib.</i>
Ulang (bird, Java)	108
Ulan (name, Besis)	325*
Ulu (name, M. Kuning)	339*
Ulu Muar (place, Johore)	275
Ulu Kissang (Mal. Pen.)	248
Ulu Pahang	327
Ulubalangs	<i>ib.</i>
Umbu (name Mintira)	349*
Umal do.	321*
Umut shoot of plant,	255
Umbai (kamp. Mintira)	<i>ib.</i>
Undan, (kind of paddy)	331*
Unka (Monkey)	257

V

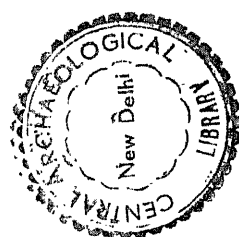
Vi luang	50
Vinh Long	52
Vo Vuong	50
Vua	49

W

Wah (name, Besis)	325
Wayang kulit	365
Wedons (off Java)	102
Woel (leaves)	255
Wuan, (leaves)	<i>ib.</i>

Y

Yen Quang (div. Anam)	51
Y, haan Wetsoowan.. ..	415



Gal
N 1.5.74.

"A book that is shut is but a block"

CENTRAL ARCHAEOLOGICAL LIBRARY

GOVT. OF INDIA
Department of Archaeology
NEW DELHI

Please help us to keep the book
clean and moving.
